



# **ALI-DVR3000H Series 960H Digital Video Recorder User Manual**

Products: ALI-DVR3004H, ALI-DVR3008H, ALI-DVR3016H



*ALI-DVR3000H Series DVR*

PLEASE READ THIS MANUAL BEFORE USING YOUR SYSTEM, and always follow the instructions for safety and proper use. Save this manual for future reference.



*Do not expose this appliance to rain or moisture. Operate this device only in environments where the temperature or humidity is within the recommended range. Operation at extreme temperatures or in very high or low humidity levels may cause electric shock and shorten the life of the product.*



**FCC Caution:** *To assure continued compliance, use only shielded interface cables when connecting to computer or peripheral devices. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.*

## NOTE

*This equipment has been tested and found to comply with the limits for a Class "A" digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.*

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## Regulatory information

### FCC information

FCC compliance: This equipment has been tested and found to comply with the limits for a digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### FCC conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

## Perchlorate Material

Special handling may apply. See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate). This notice is required by California Code of Regulations, Title 22, Division 4.5, Chapter 33: Best Management Practices for Perchlorate Materials. This device includes a battery which contains perchlorate material.

## Power Cord Requirements

The connector that plugs into the wall outlet must be a grounding-type male plug designed for use in your region. It must have certification marks showing certification by an agency in your region. The connector that plugs into the AC receptacle on the power supply must be an IEC 320, sheet C13, female connector. See the following website for more information:  
<http://kropla.com/electric2.htm>.

## Preventive and Cautionary Tips

When installing and using your DVR, always follow these tips:

- Ensure unit is installed in a well-ventilated, dust-free environment.
- Unit is designed for indoor use only.
- Keep all liquids away from the device.
- Ensure environmental conditions meet factory specifications.
- Ensure unit is properly secured to a rack or shelf. Major shocks or jolts to the unit as a result of dropping it may cause damage to the sensitive electronics within the unit.
- Use the device with an uninterruptible power supply (UPS) if possible.
- Power off the unit before connecting and disconnecting accessories and peripherals.

- 
- A factory recommended HDD should be used for this device.
  - Improper use or replacement of the battery may result in hazard of explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.

## Safety Instructions

**Read these instructions and keep them in a safe place for future reference.**

- Please refer all work related to the installation of this product to qualified service personnel or system installers.
- Do not operate the appliance beyond its specified temperature, humidity or power source ratings.
- Place the unit on a flat surface not prone to vibration or impact.
- Use the appliance at temperatures between 14 °F ~ 131 °F (-10 °C ~ +55 °C) and relative humidity below 90%. The input power source for this appliance is between 90 ~ 264 Vac, 47 ~ 63 Hz.
- Install the unit away from heat sources such as radiators, heat registers and stoves.
- Installation of the unit near consumer electronics devices, such as stereo receiver/amplifiers and televisions, is permitted as long as the air surrounding the terminal does not exceed the above mentioned temperature range.
- Handle hard disk drives with care.
  - It is possible to damage hard drives if they are moved while their motors are still running. To allow the hard drive to spin down and park its heads, wait at least 10 seconds after disconnecting power before moving the unit.
  - To avoid shock and vibration damage to the internal hard drive, do not move the unit while it is plugged in.
  - Protect hard disk drives from static electricity.
  - Do not stack hard disk drives or keep them upright.
  - Do not use an electric or magnetic screwdriver to install hard disk drives.
- Do not place the unit in an enclosed area where the cooling vents are blocked or impede the flow of air through the ventilation openings.
- Protect the power cord from being stepped on or pinched particularly at plugs and the points where they exit from the apparatus.
- Do not drop metallic parts through slots. This could permanently damage the appliance. Turn the power off immediately and contact qualified service personnel for service.
- Handle the appliance with care. Do not drop or shake, as this may damage the device.
- Do not expose the appliance to water or moisture, nor try to operate it in wet areas. Do not install the unit in an area where condensation occurs. Do not operate with wet hands. Take immediate action if the appliance becomes wet. Turn the power off and refer servicing to qualified service personnel. Moisture may damage the appliance and also cause electric shock.
- Do not use strong or abrasive detergents when cleaning the surfaces of this product. When dirt is hard to remove, use a mild detergent and wipe gently.
- Do not overload outlets and extension cords. Electric shock or fire may result.
- Save your system configuration.
- Distributing, copying, disassembling, reverse compiling, reverse engineering, and exporting, in violation of export laws, the software provided with this product is expressly prohibited.

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## SECTION 1

# Systems Overview

Congratulations on purchasing your new ALI-DVR3000H Series 960H Digital Video Recorder security system! Your system includes the following key features:

### General

- H.264 video compression with high reliability and superior definition.
- Each channel supports dual-stream.
- Main stream supports encoding at up to 4CIF resolution and sub-stream encoding at CIF/QCIF resolution.
- Independent configuration for each channel, including resolution, frame rate, bit rate, image quality, etc.
- The quality of the input and output video is configurable.
- Normal and event recording parameters configurable for per individual camera.
- Encoding for both audio/video composite stream and video stream; audio and video synchronization during composite stream encoding.
- Watermark technology.

### Local Monitoring

- Simultaneous HDMI, VGA and CVBS outputs.
- HDMI/VGA output at up to 1920 × 1080p resolution.
- 1 / 4 / 6 / 8 / 9 / 16-division live view is supported, and the display sequence of screens is adjustable.
- Live view screen can be switched in group, and manual switch and automatic cycle view is also provided, the interval of automatic cycle can be adjusted.
- Quick setting menu is provided for live view.
- The selected live view channel can be shielded.
- Motion detection, video tampering detection and video loss alarm functions.
- Privacy mask.
- Multiple PTZ protocols supported; setting and calling of PTZ preset, patrol and pattern.
- Zooming in by clicking the mouse and PTZ tracing by dragging mouse.

### HDD Management

- 1 SATA hard disk can be connected, with a maximum of 4TB storage capacity.
- HDD quota management; different capacity can be assigned to different channels.
- HDD group management.
- Support HDD standby function.
- 8 network disks (8 NAS disks, or 7 NAS disks+1 IP SAN disk) can be connected.
- HDD property: redundancy, read-only, read/write (R/W).

## **Recording and Playback**

- Holiday recording schedule configuration.
- Normal and event video encoding parameters.
- Multiple recording types: manual, normal and motion.
- 8 recording time periods with separated recording types.
- Pre-record and post-record for motion detection for recording, and pre-record time for schedule and manual recording.
- Searching record files by event.
- Customization of tags, searching and playing back by tags.
- Locking and unlocking record files.
- Searching and playing back record files by channel number, recording type, start time, end time, etc.
- Smart search for the selected area in the video.
- Zooming in when playback.
- Reverse playback.
- Supports pause, slow forward, fast forward, skip forward, and skip backward when playback.
- Up to 4 / 8 / 16 channel synchronous playback.

## **Backup**

- Export video data to USB device.
- Export video clips during playback.
- Management and maintenance of backup devices.

## **Alarm and Exception**

- Alarm for video loss, motion detection, tampering, video input/output standard mismatch, illegal login, network disconnected, IP conflict, HDD error, and HDD full, etc.
- Alarm event triggers full screen monitoring, audio alarm, notifying surveillance center and sending email.
- Automatic restore when system is abnormal.

## **Other Local Functions**

- Operable by mouse or remote control.
- Three-level user management; admin user can create accounts and define their operating permissions, including access to camera channel.
- Operation, exceptions and log recording and search.
- Export and import DVR configuration.

## **Network Functions**

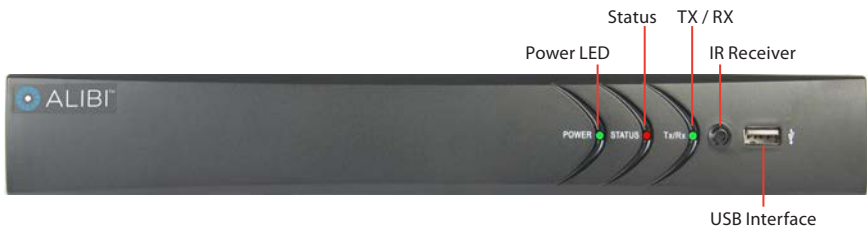
- 1 self-adaptive 10Mbps / 100Mbps network interface.
- IPv6 is supported.

- TCP/IP protocol, PPPoE, DHCP, DNS, DDNS, NTP, SADP, SMTP, UPnP™, RTSP, iSCSI are supported.
- TCP, UDP and RTP for unicast.
- Remote search, playback, download, locking and unlocking the record files, and downloading files broken transfer resume.
- Remote parameters setup; remote import/export of device parameters.
- Remote viewing of the device status, system logs and alarm status.
- Remote locking and unlocking of control panel and mouse.
- Remote HDD formatting and program upgrading.
- Remote system restart.
- Alarm event and exception information can be sent to the remote host.
- Remotely start/stop recording.
- Upgrade by remote FTP server.
- Two-way audio and voice broadcasting.
- Embedded WEB server.

## 1.1 DVR Controls, connectors and indicators

Your new security system is easy to use and easy to setup. This section includes the function and use of the components included with a DVR system. For installation instructions, refer to Section 2. Advanced control and configuration procedures are included in Sections 3 through 9.

### DVR Front Panel



*ALI-DVR3000H series front panel*

| Item          | Usage   |
|---------------|---|
| Power LED     | Indicator turns green when DVR is powered up.                               |
| Status        | STATUS indicator lights in red when HDD is reading/writing.                 |
| TX / RX       | LED indicator blinks green when network connection is functioning properly. |
| IR Receiver   | Sensor for the remote control.  |
| USB Interface | This port can be used for a USB mouse or USB flash memory devices.          |

## DVR Backpanels

*ALI-DVR3004H backpanel**ALI-DVR3008H backpanel**ALI-DVR3016H backpanel*

|    | Item                | Description   |
|----|---------------------|---|
| 1  | VIDEO IN            | BNC connectors for camera video channels in. Number of channels is dependent on the model of the DVR.   |
| 2  | Monitor Out (CVBS)  | BNC connector for CVBS video monitor.   |
| 3  | AUDIO IN            | RCA connector for audio in cable.   |
| 4  | ON / OFF switch     | Switch for powering the DVR on and off  |
| 5  | USB                 | This port can be used for a USB mouse or USB memory device such as a flash drive or DVD burner. An additional USB port is located on the front panel. |
| 6  | HDMI                | Connector HDMI monitor cable.   |
| 7  | VGA                 | Connector VGA monitor cable.  |
| 8  | AUDIO OUT           | RCA connector for audio out cable.  |
| 9  | LAN                 | RJ-45 connector for Ethernet drop cable.  |
| 10 | RS-485 terminations | Connector for RS-485 devices. Connect the D+ and D- terminals to T+ and T- of PTZ receiver respectively.  |

|    | Item         | Description                    |
|----|--------------|--------------------------------|
| 11 | 12 Vdc       | Plug for 12 Vdc power adapter. |
| 12 | GND terminal | Ground terminal post.          |

### 1.1.1 Remote control

The enter key on the remote control or the front panel has the same function as a mouse left click. The IR Range of the remote control is 10 meters. The buttons on the remote control correspond with the buttons on the front panel.



| Item | Name                 | Function  |
|------|----------------------|---|
| 1    | POWER                | Power on/off the device.  |
| 2    | DEV                  | Enables/Disables Remote Control.  |
| 3    | Alphanumeric Buttons | Switching to the corresponding channel in Live view or PTZ Control mode.<br>Inputting numbers and characters in Edit mode.<br>Switching between different channels in All-day Playback mode.  |
| 4    | EDIT Button          | Editing text fields. When editing text fields, it will also function as a Backspace button to delete the character in front of the cursor. On checkbox fields, pressing the EDIT button will tick the checkbox.<br>In Playback mode, it can be used to generate video clips for backup. |
| 5    | A Button             | Switching between input methods (upper and lowercase alphabet, symbols and numeric input).  |
| 6    | REC Button           | Entering the Manual Record settings menu.<br>In PTZ control settings, press the REC button and then you can call a PTZ preset by pressing Numeric button.   |
| 7    | PLAY Button          | Playback, for direct access to playback interface.  |
| 8    | INFO Button          | Reserved.   |
| 9    | VOIP button          | Selecting all items on the list;<br>In live view or playback mode, it can be used to switch between main and spot video output  |
| 10   | MENU button          | Press the button will help you return to the Main menu (after successful login).<br>Press and hold the button for 5 seconds to turn off audible key beep.   |
| 11   | PREV button          | Switch between single screen and multi-screen mode.   |

## SECTION 1: SYSTEM OVERVIEW

| Item | Name                    | Function  |
|------|-------------------------|---|
| 12   | DIRECTION/ENTER buttons | Navigating between different fields and items in menus.<br>In Playback mode, the UP and DOWN button are used to speed up and slow down recorded video.<br>The LEFT and RIGHT buttons select the next and previous day of recordings.<br>In LIVE view mode, these buttons can be used to cycle through channels. |
| 13   | PTZ button              | Enter the PTZ Control mode.   |
| 14   | ESC button              | Return to the previous menu.<br>Press for Arming/disarming the device in Live View mode.  |
| 15   | RESERVED                | Reserved for future usage.  |
| 16   | F1 button               | Selecting all items on the list when used in a list field.<br>In PTZ Control mode, it will turn on/off PTZ light.   |
| 17   | PTZ Control buttons     | Buttons to adjust the iris, focus and zoom of a PTZ camera.   |
| 18   | F2 button               | Cycle through tab pages.  |

### 1.1.2 Mouse control

A standard 3-button (left/right/scroll-wheel) USB mouse can also be used with this DVR. To use a USB mouse:

1. Plug USB mouse into the either the front panel or backpanel USB connector of the DVR.
2. The mouse will be automatically detected. If the mouse is not detected, the mouse may not be compatible with the DVR.  
Please refer to the recommended device list from your provider.

The operation of the mouse:

| Action       | Effect   |
|--------------|--|
| Right click  | <b>Live view:</b> Show menu.<br><b>Menu:</b> Exit current menu to upper level menu.  |
| Left click   | <b>Single click:</b> Live view: Select channel and show the quick set menu.<br><b>Menu:</b> Select and enter.                          |
|              | <b>Double click:</b> Live view: Switch between single-screen and multi-screen.   |
|              | <b>Click and drag:</b> PTZ control: pan, tilt and zoom.<br><b>Tamper-proof, privacy mask and motion detection:</b> Select target area. |
|              | <b>Digital zoom-in:</b> Drag and select target area.<br><b>Live view:</b> Drag channel/time bar  |
| Scroll wheel | <b>Scroll up:</b> Live view: Previous screen.<br><b>Menu:</b> Previous item.   |
|              | <b>Scroll down:</b> Live view: Next screen.<br><b>Menu:</b> Next item.   |

### 1.1.3 Soft keyboard

An on-screen QWERTY keyboard appears when you click in a field that accepts a text entry, such as a password or name. The keyboard is shown in the following picture. Some control keys toggle their function when they are clicked.



*Soft keyboard*

## **SECTION 2**

# **Installing the System**

## **2.1 Getting Started: Unpacking the Equipment**

### **What's in the box**

Your system includes:

- ALI-DVR3000H Series DVR
- Remote Control
- USB mouse
- 6 foot Ethernet cable
- 6 foot HDMI cable
- Power adapter and cable for DVR

Remove the equipment from its packaging and place it on a flat, clean surface. Inspect each item. If any visible damage is present, contact your supplier for a replacement. Verify that your order is complete.

### **What you need**

Although each security system installation is different, most require the following items not included with your system components:

- IP cameras and cables compatible with the DVR
- Tools to install the cameras and route power and video cables
- Fasteners to attach the cameras to the mounting surfaces
- VGA or HDMI compatible computer monitor to connect to the DVR. (An HDMI cable is provided.) The display device is usually needed only for system setup. It can be disconnected when the DVR is networked for access across a LAN or Internet.
- Uninterruptible power supply (UPS). This device is used to ensure system stability during voltage surges, sags, and outages. If a UPS is not available, a power strip with strong surge protection is highly recommended.

## **2.2 DVR installation general guidelines**

### **2.2.1 Installing an HDD in the DVR**

If you purchased your DVR without an internal HDD, you must install one for the DVR to function properly. Follow the procedure in "APPENDIX C HDD Installation" on page 113. If your DVR has an HDD, skip this procedure and continue installing the system with step "2.2.2 Placement" on page 9.



## 2.2.2 Placement

Your monitoring and recording equipment is the core device for constant surveillance and the reliable capture of video evidence. Observint Technologies strongly suggest that it be installed in a secure location with access limited to authorized personnel.

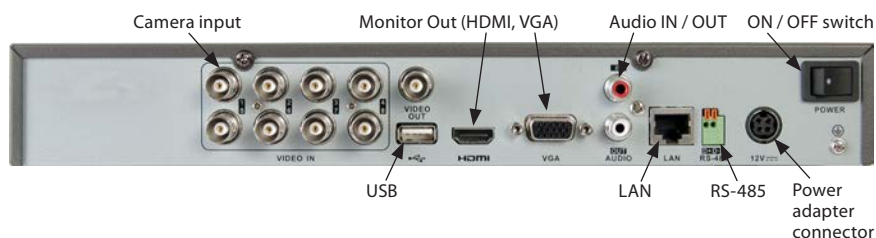
DVRs and monitors generate heat and should be placed in a clean and well ventilated area. A high temperature environment will reduce the life span and reliability of the equipment. Additionally, the DVR is not weatherproof, so avoid exposure to liquids and excessive dust. Do not place objects along the sides of the DVR that will block airflow through the unit.

## Uninterruptible power supplies

It is strongly suggested that power to the system be routed through an uninterruptible power supply (UPS). These devices will keep your security system running through most power outages, in addition to providing excellent surge and sag protection. The UPS should support the DVR and all cameras to ensure normal operation during abnormal power conditions.

## Proximity to other cameras and the local LAN

Your DVR connects to cameras through coaxial cables, and to an Ethernet network for remote access. The coaxial cables must be short enough to provide a good signal level to the DVR from your cameras. Connectorized coaxial cables with a power and audio leads are usually available in lengths up to 100 ft from your supplier. Ethernet drop cables can be up to 330 ft (100 m) in length. All cables attach to the backpanel of the DVR (see below). A front panel USB port is also provided for a USB mouse or USB flash memory device.



## 2.3 Install the DVR and monitor

For the following steps, refer to the back panel photo above for the location of connectors.

1. Place the DVR in a location that is secure, well ventilated and clean. The DVR should be positioned such that the back panel connectors are accessible and the ventilation holes on the sides are not blocked.
2. Install and setup your monitor in accordance with the instructions provided with the monitor. Do not power it on at this time.
3. Cable the HDMI or VGA connector to your monitor's VGA or HDMI input. The HDMI interface provides the best performance.

4. Plug the mouse into the USB connector on the front or back of the DVR.
5. If you plan to access your DVR remotely, or configure your DVR to transmit alerts, email, etc. to external servers, plug a drop cable from your local area network (LAN) into the RJ-45 LAN connector on the back of the DVR. (By default, the DVR automatically acquires network settings using DHCP.)
6. Connect the power cord to the power connector on the back panel of the DVR, and then into a UPS (preferred) or surge protector.

**NOTE**     *Do not power on the DVR at this time.*

## 2.4 Camera installation

Always refer to the documentation provided with the camera for installation instructions. The general guidelines provided below include information about installing security cameras that is often not found in manufacturer's documentation. Installing your cameras with consideration of these guidelines can help improve the performance and reliability of your system.

### 2.4.1 General Guidelines

#### Camera placement

Plan your camera installation carefully. Identify the locations where cameras will provide the best coverage, considering:

- **Distance from the DVR** – for best performance, your cameras must provide an optimal video signal (and audio signal, if used) to your DVR. For most installations, a length of good quality coaxial cable can be up to 100 ft. The inherent signal loss in longer cables may degrade quality.
- **Field of view** – Cameras should be positioned so they can effectively view the entire area that must be monitored, and in a location where it is difficult to tamper with them.
- **Lighting** – Light shining directly on the camera lens or bright reflections from shiny objects in the field of view can diminish video quality and camera performance. Mount the camera in a shaded area, if possible, or where light shining on or reflected onto the lens can be minimized.
- **Ease of installation** – It must be possible to install the camera at the location, considering mounting hardware requirements, mounting surface, contamination, etc.
- **Environmental specifications** – Check the specifications of your cameras to ensure the location where they will be installed is within the environmental constraints of the camera.

## About weatherproof cameras

Weatherproof cameras can be mounted in any open area, such as on a telephone pole or on the side of a building. For best results, we recommend you mount your cameras in a sheltered area, such as under the eave or roof of a building, if possible.

Weatherproof cameras compatible with your DVR may have cables attached to the camera body and not routed through the camera base. If these cameras are installed in a moist environment, a drip loop should be constructed in the drop cable such that moisture will tend to flow away from the camera and drop cable connectors.



**NOTE** *Cable connectors are not weatherproof.*

LAN/power cables can be run almost anywhere, and are frequently routed through attics or above drop/acoustic ceilings because of the ease of installation. For added security, we recommend that you run your cables in areas with limited access to prevent tampering. Avoid running the cable near high voltage appliances such as fluorescent lighting. Electrical noise and magnetic fields produced by these devices may affect video and communication signal quality.

### 2.4.2 Install cameras

Install your security cameras as needed to support your security requirements. Always refer to the documentation provided with the camera for installation instructions.

## 2.5 Connecting it together – initial system setup

1. Plug the coaxial cables from the cameras into the BNC camera input connectors on the back of the DVR.
2. Power on the DVR using the power on / off (I / O) switch on the back panel.
3. Power on the monitor.

**NOTE**

*Some monitors have multiple inputs such including VGA, HDMI, BNC, etc. If you are using this kind of monitor, configure your monitor to display the input connected to your DVR (HDMI or VGA).*

4. Power on your cameras.

### 2.5.1 Using the Wizard for basic configuration setup

When the DVR is powered on, an Alibi logo splash screen appears within 2 minutes.



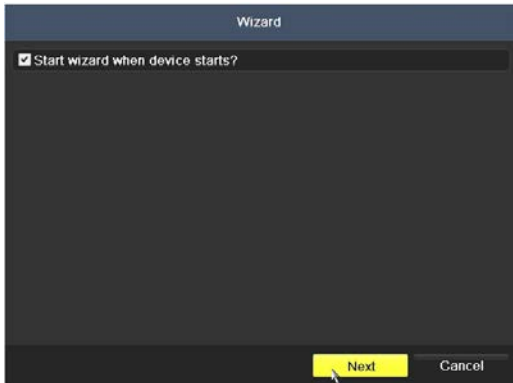
1. After the initial Alibi loading window (see above), a monitor resolution selection screen may appear. The DVR will offer the optimal resolution for your monitor, but you can select another resolution if you prefer. At this screen, select the preferred resolution, then click **Next**, or allow the setup Wizard to open.



2. The Setup Wizard can assist you in making important configuration settings in DVR. Click **Next** button on the Wizard window to open the **Login** window.

**NOTE**

The configuration settings presented in the setup Wizard can also be made and changed using the **Menu** system. See Chapters 5 - 7 for more information.

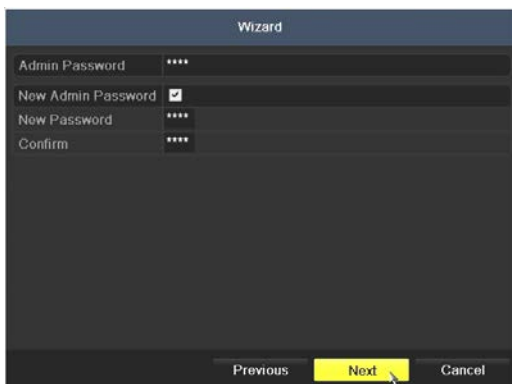


3. Enter the admin password in the appropriate field. To do that, click inside the **Admin Password** field to open the virtual keyboard. Click the appropriate icons to enter the password, then click the **Enter** icon. The default **admin** password is **1111**.



Observeit strongly recommends that you change the default admin user password to improve the security of your surveillance system. To change the admin password, check the **New Admin Password** box, then enter the new password in the **New Password** and **Confirm** fields. Record your new password and save it in a secure location.

## SECTION 2: INSTALLING THE SYSTEM

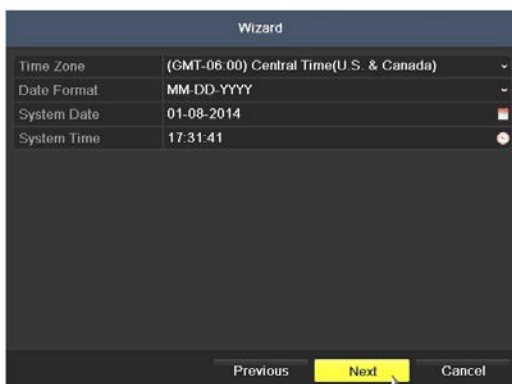


The Wizard window displays password configuration options. It includes fields for Admin Password, New Admin Password (with a checked checkbox), New Password, and Confirm. At the bottom, there are buttons for Previous, Next, and Cancel.

| Wizard             |                                     |
|--------------------|-------------------------------------|
| Admin Password     | ****                                |
| New Admin Password | <input checked="" type="checkbox"/> |
| New Password       | ****                                |
| Confirm            | ****                                |

Previous Next Cancel

- Click the **Next** button to open the date and time settings window.



The Wizard window displays date and time configuration options. It includes fields for Time Zone, Date Format, System Date, and System Time. At the bottom, there are buttons for Previous, Next, and Cancel.

| Wizard      |   |
|-------------|---|
| Time Zone   | (GMT-06:00) Central Time(U.S. & Canada) |
| Date Format | MM-DD-YYYY                              |
| System Date | 01-08-2014                              |
| System Time | 17:31:41                                |

Previous Next Cancel

- In the date and time setup window, click the field you want to change, then use the drop-down list or setup aid to select the appropriate values. Click **Next** to confirm your settings or **Cancel** to discard them and open the network setup Wizard window.
- In the **Network** setup Wizard window, click the field value you want to change, then use the pop-up aid to enter a new value. By default, the DVR uses DHCP (Dynamic Host Configuration Processor) to acquire compatible (dynamic, changeable) network settings from a network DHCP server.

The screenshot shows the 'Wizard' window for network configuration. The 'NIC Type' is set to '10M/100M Self-adaptive'. The 'Enable DHCP' checkbox is checked. The IPv4 settings are: Address 192.168.75.74, Subnet Mask 255.255.255.0, Default Gateway 192.168.75.1, Preferred DNS Server 192.168.1.223, and Alternate DNS Server 12.127.17.71. At the bottom, there are 'Previous', 'Next', and 'Cancel' buttons.

| Wizard   |                                     |
|--|-------------------------------------|
| NIC Type   | 10M/100M Self-adaptive              |
| Enable DHCP  | <input checked="" type="checkbox"/> |
| IPv4 Address   | 192 . 168 . 75 . 74                 |
| IPv4 Subnet Mask   | 255 . 255 . 255 . 0                 |
| IPv4 Default Gateway   | 192 . 168 . 75 . 1                  |
| Preferred DNS Server   | 192.168.1.223                       |
| Alternate DNS Server   | 12.127.17.71                        |
| <div> <div>Previous</div> <div>Next</div> <div>Cancel</div> </div> |                                     |

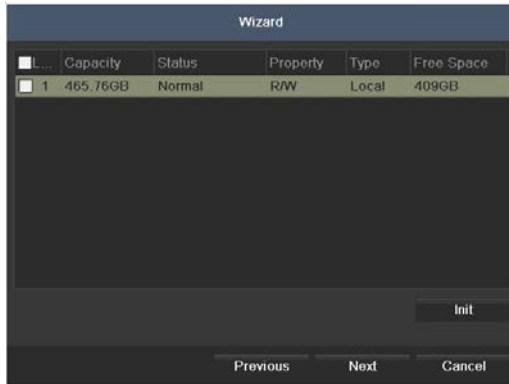
Generally, it is preferable to setup the DVR with a fixed network settings, if possible, to assure the DVR has an unchanging IP address for remote logins. To enable fixed network settings, uncheck the **Enable DHCP** box, then edit the appropriate fields to change the settings. Consult with your network administrator to determine the best network settings for your DVR. When finished, click **Next**.

The screenshot shows the 'Wizard' window for network configuration. The 'NIC Type' is set to '10M/100M Self-adaptive'. The 'Enable DHCP' checkbox is unchecked. The IPv4 settings are: Address 192.168.75.74, Subnet Mask 255.255.255.0, Default Gateway 192.168.75.1, Preferred DNS Server 192.168.1.223, and Alternate DNS Server 12.127.17.71. At the bottom, there are 'Previous', 'Next', and 'Cancel' buttons. The 'Next' button is highlighted in yellow, and a mouse cursor is pointing at it.

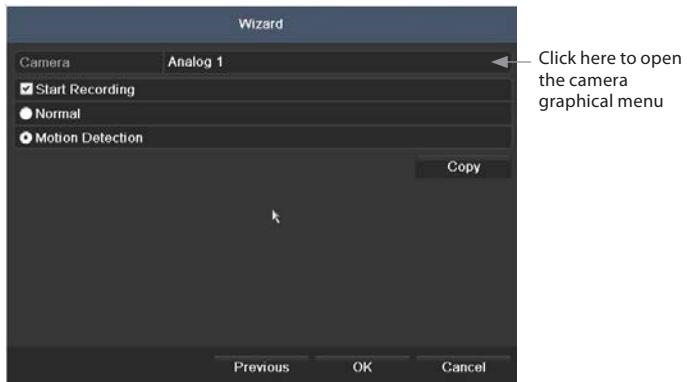
| Wizard   |                          |
|--|--------------------------|
| NIC Type   | 10M/100M Self-adaptive   |
| Enable DHCP  | <input type="checkbox"/> |
| IPv4 Address   | 192 . 168 . 75 . 74      |
| IPv4 Subnet Mask   | 255 . 255 . 255 . 0      |
| IPv4 Default Gateway   | 192 . 168 . 75 . 1       |
| Preferred DNS Server   | 192.168.1.223            |
| Alternate DNS Server   | 12.127.17.71             |
| <div> <div>Previous</div> <div>Next</div> <div>Cancel</div> </div> |                          |

- Click **Next** after you configured the network parameters. The HDD management Wizard window will open. If a new DVR is shipped with a pre-configured HDD, nothing needs to be done in this window. If you installed an HDD or replaced the HDD, select (check the box for) the HDD, then click **Init** to setup the disk for the DVR. **NOTE: Init** will erase all data from the disk. When the initialization is complete, click **Next** to continue.

## SECTION 2: INSTALLING THE SYSTEM



8. In the camera setup wizard, you can initially select the recording mode for each camera attached to the camera input BNC connectors. To use this menu:

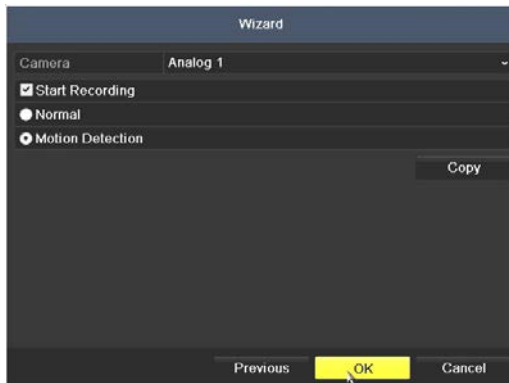


- In the **Camera** menu shown above, open graphical menu select the camera to configure. "1" (Analog 1) identifies the camera plugged into the camera input BNC connector 1, "2" (Analog 2) identifies the camera on BNC connector 2, etc.
- To configure the camera for recording, click the **Start Recording** box to check it, then click the bullet for either **Normal** (continuous) mode recording or **Motion Detection** mode recording.
- Do one of the following:
  - To copy these recording settings to other cameras connected to the DVR, click **Copy**, then select the other cameras to you want to apply the settings to.



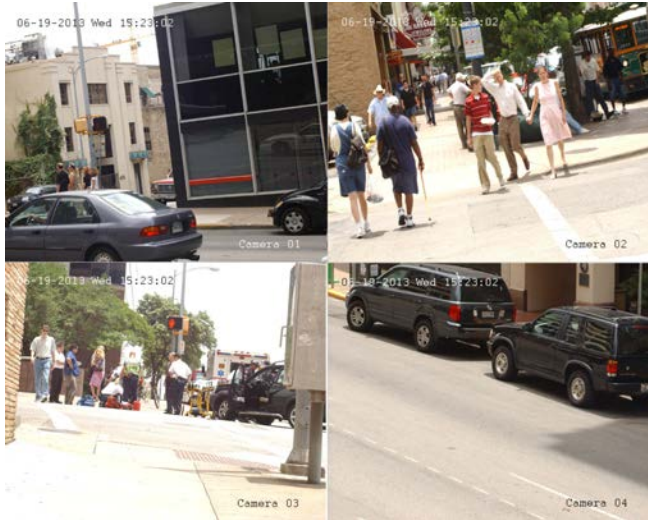


- \* To configure another camera differently, open the **Camera** graphical menu and select the next camera to configure. Then repeat the steps above to configure the recording mode for that camera. You can also **Copy** these settings to other cameras.
- d. After configuring the recording mode for each camera, click **OK** to confirm your settings and close the Wizard.



9. Click **OK** when the recording mode for each camera is selected. The Wizard will close and the DVR will present the **Live View** display. For more information about the Live View display, see "SECTION 4 Live View Interface" on page 32.

## SECTION 2: INSTALLING THE SYSTEM



*Live View display*

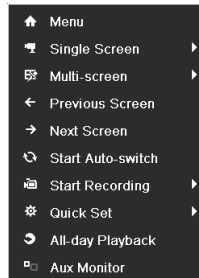
10. While viewing video from each cameras in the **Live View** display, adjust the direction of each camera to aim it at its surveillance target. Follow the manufacturer's recommended procedures for aiming the cameras.



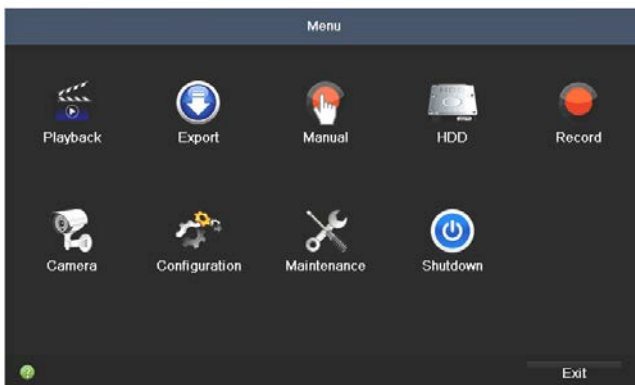
## 2.6 Using the Menu system

After the initial setup of your DVR using the Wizard, the Menus interface enables you to refine your configuration settings and expand the functionality of the system. To use most menus, the user must log into the DVR system, either locally or remotely, with administrative privileges.

To open the Menu system from the Live View screen, right click anywhere in the screen, then select **Menu**.



If ID Authentication is not disabled (see the General Settings), a login window will open. In the Login window, select a User Name with administrative privileges, enter its password, then click **OK**. **NOTE:** A window of Menu icons will open. The default user “admin” has the default password of “1111”.

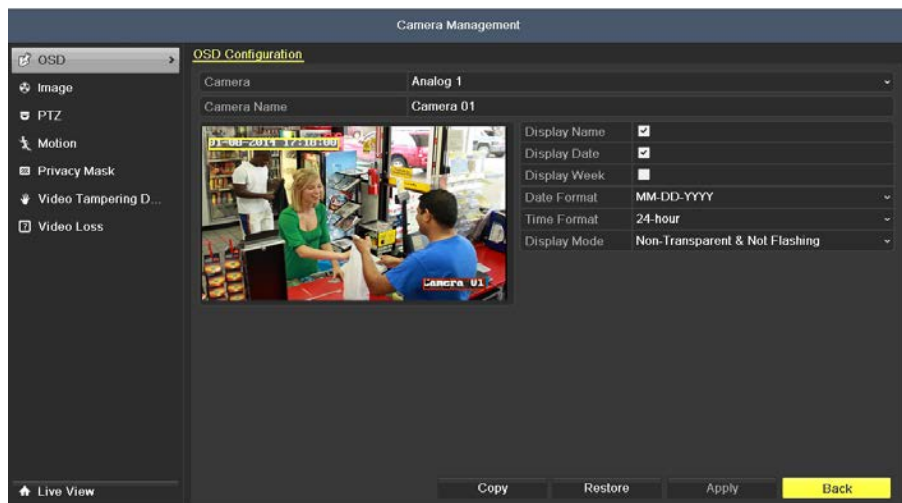


### 2.6.1 Using the Camera menu

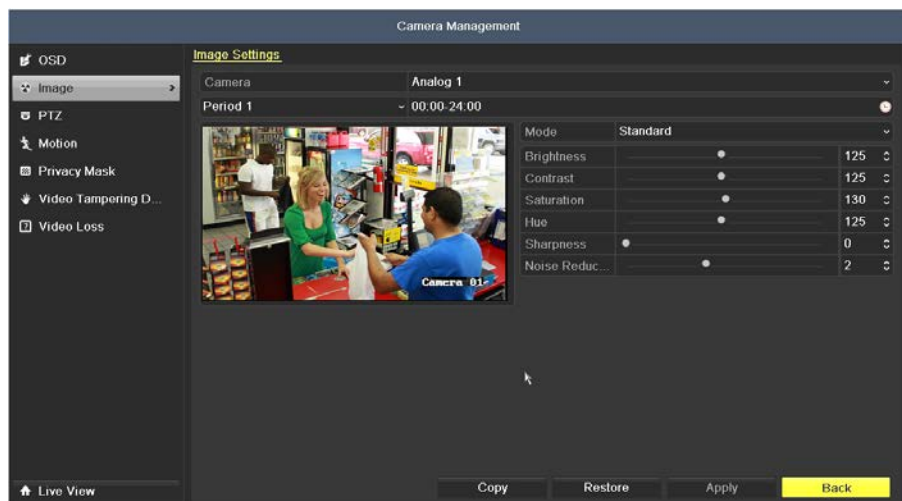
The Camera menu lists all cameras configured in the DVR, and shows the channel, name, timestamp, etc. of each. Using this menu, you can assign names to each camera for easy recognition, select areas for motion detection and privacy blocking, and conditions to alarm such as video tampering and video loss.

## SECTION 2: INSTALLING THE SYSTEM

To validate the camera information, open the Camera Management menu. Go to **Main menu | Camera**. The Camera Management menu opens with the OSD submenu, used to configure the on-screen display information. You can opt to display the camera name, date and day of the week, assign the camera name, and set the format and mode for the date, time and OSD display for each camera individually. Click **Apply** to save your settings. Use the **Copy** tool to easily apply the settings you chose for other cameras.



Click the Image option in the left frame to open the video adjustments menu controls. Use the Mode control option, or drag the sliders left or right to optimize the appearance of the video from each camera. Click **Apply** to save your settings.

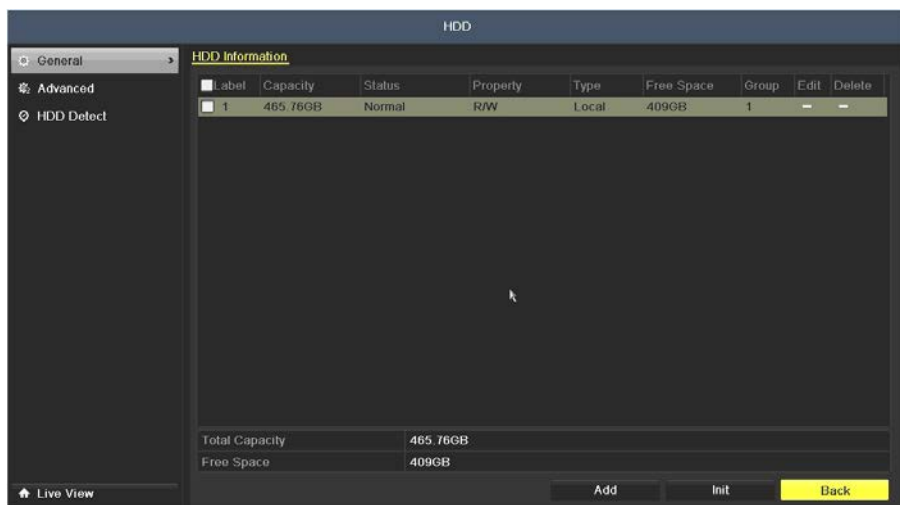


## 2.7 Configuring HDD settings

### 2.7.1 Checking HDD status

Check the status of the HDD installed in the DVR to assure it is functioning normally.

1. Open the HDD Information display. Go to **Menu | HDD | General**



2. Check the status of the HDD. If the status is:
  - **Normal** or **Sleeping** – The HDD is working normally.
  - **Uninitialized** or **Abnormal** – Initialize the HDD before continuing. Check the select box of the HDD to initialize, then click the **Init** button at the bottom of the screen.
  - **Failed** – If the HDD failed during or after initialization, replace the HDD.

### 2.7.2 Managing Network Storage

Additional file storage can be added to your DVR using up to 8 NAS disks, or up to 7 NAS disks with 1 IP SAN disk. To configure this storage:

1. Open the HDD Information interface. Go to **Menu | HDD | General**

## SECTION 2: INSTALLING THE SYSTEM

**HDD Information**

| <input type="checkbox"/> Label        | Capacity | Status | Property | Type  | Free Space | Group | Edit | Delete |
|---------------------------------------|----------|--------|----------|-------|------------|-------|------|--------|
| <input checked="" type="checkbox"/> 1 | 465.76GB | Normal | R/W      | Local | 409GB      | 1     | —    | —      |

- Click the **Add** button at the bottom of the screen to open the **Add NetHDD** menu.

**Add NetHDD**

|                   |          |   |
|-------------------|----------|---|
| NetHDD            | NetHDD 1 | ▼ |
| Type              | NAS      | ▼ |
| NetHDD IP Address | . . .    |   |
| NetHDD Directory  |          |   |

OK Cancel

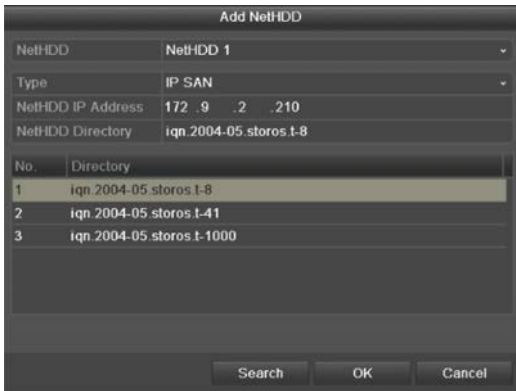
- In the NetHDD drop down list, select the NetHDD ID (NetHDD 1 .. NetHDD 8) you want to add.
- In the **Type** drop down list select either NAS or IP SAN.
- Configure the device type you selected.
  - **For a NAS disk:**
    - Click the **NetHDD IP Address** field to open a virtual keyboard and enter the IP address of the storage device.
    - Click **Search** to discover the available NAS disk directories on the network.
    - Select the NAS disk directory from the list shown below, or manually enter the directory in the text field of NetHDD Directory.



- iv. Click **OK** to add the NAS disk to your system.

— **For an IP SAN disk:**

- i. Enter the NetHDD IP address in the text field.
- ii. Click **Search** to discover the available IP SAN disk directories on the network.
- iii. Select the IP SAN disk directory from the list shown below.



- iv. Click **OK** to add the selected IP SAN disk to your system.

**NOTE:** If the added NetHDD is uninitialized, select it and click the **Init** button for initialization. Initializing an HDD erases all data saved on the disk.

- 6. Add additional disks as needed up to a maximum of 8 NAS or 7 NAS and 1 IP SAN.

## 2.7.3 Configuring the HDD

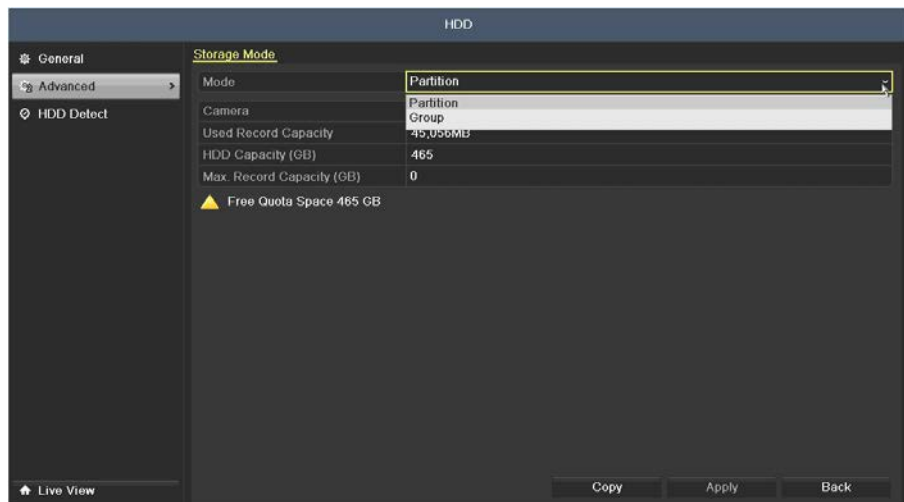
By default, all cameras will record to the one partition of the internal HDD. If multiple disks (internal HDD and network drives) are installed, individual cameras or groups of cameras can be configured to save their recordings to assigned areas on those drives.

Before you start:

1. Make sure that an HDD is installed. If not, install a HDD and initialize it. Go to **Menu | HDD | General**.

| HDD Information |          |        |          |       |            |       |      |        |
|-----------------|----------|--------|----------|-------|------------|-------|------|--------|
| Label           | Capacity | Status | Property | Type  | Free Space | Group | Edit | Delete |
| 1               | 465.76GB | Normal | R/W      | Local | 409GB      | 1     | —    | —      |

2. Click **Advanced** to check the storage mode of the HDD.
  - a. If the HDD mode is Quota, set the maximum record capacity. See “2.7.4 Configuring HDD Group mode” on page 24 for more information.
  - b. If the HDD mode is Group, setup the HDD group.

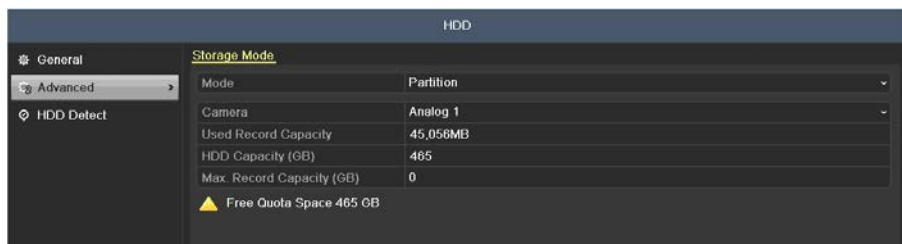


## 2.7.4 Configuring HDD Group mode

Each camera can be configured with an allocated quota for the storage of recorded files. After making configuration changes to the Storage Mode menu (see below), the DVR must be restarted for new settings to be applied.



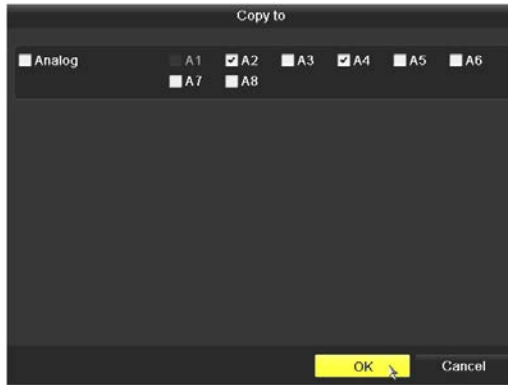
1. Open the Storage Mode menu. Go to **Menu | HDD | Advanced**



2. On the **Mode** line, open the drop down list and select **Group**.
3. On the **Camera** line, open the drop down list and select the camera channel you want to configure for Quota mode.
4. Enter the storage capacity in the text field of **Max. Record Capacity (GB)**



5. You can copy the quota settings of the current camera to other cameras if required. Click **Copy** to open the Copy Camera menu.  
**Note:** If the quota capacity is set to 0, then all cameras will use the total capacity of HDD for recordings.



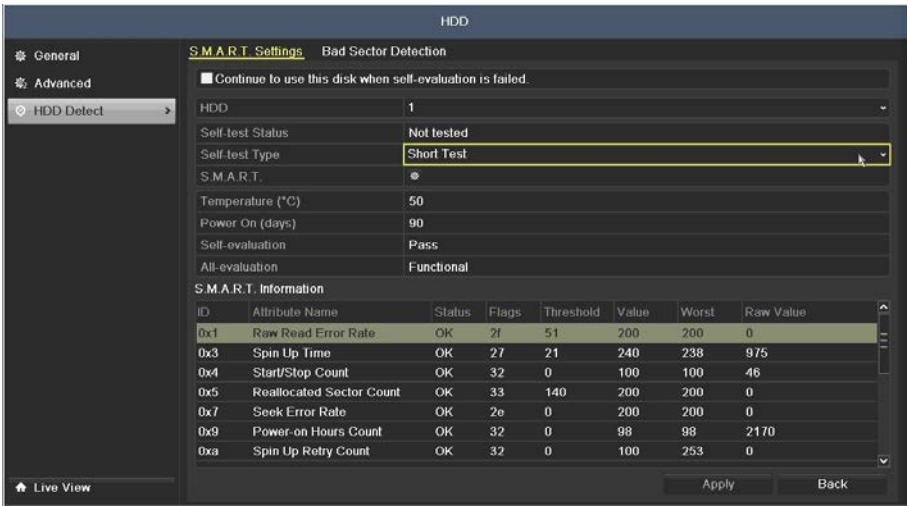
6. In the Copy to menu, check the boxes of the camera channels you want to copy the settings to.
7. Click **OK** to perform the copy and close the **Copy to** menu.
8. In the **Storage Mode** menu, click **Apply**.
9. Reboot the DVR to activate your quota settings.

## 2.7.5 HDD Detect

The **HDD Detect** feature provides two methods of monitoring the HDD: display of **S.M.A.R.T.** (Self-Monitoring, Analysis and Reporting Technology) data, and **Bad Sector Detection**. These methods can be used to assure the normal functioning of the disk, and anticipate failures.

### S.M.A.R.T. Display

1. Open the S.M.A.R.T. display menu. Go to **Menu | HDD | HDD Detect**



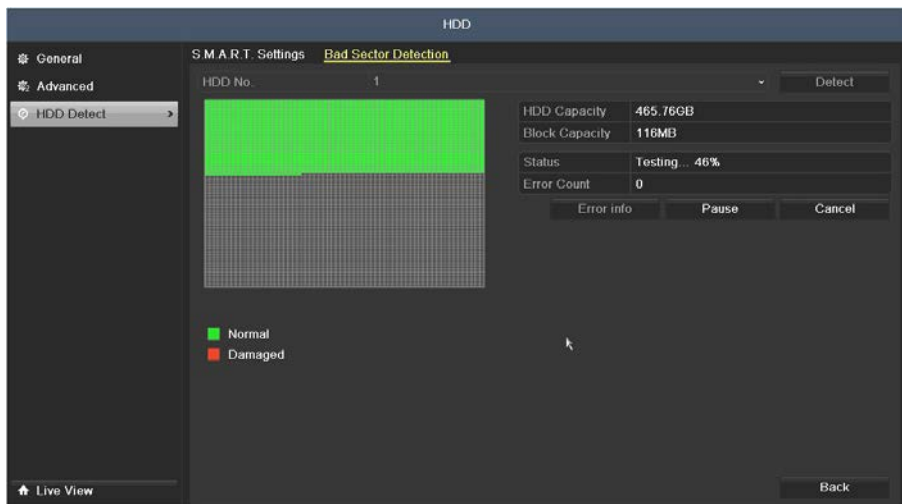
2. To execute a self-evaluation test on an HDD:
  - a. On the **HDD** line, open the drop down list to select the HDD of interest.
  - b. On the **Self-test Type** line, open the drop down list to select the type of test to execute. You can choose either Short Test, Expanded Test or Conveyance Test.
  - c. Click the icon on the S.M.A.R.T. line to execute the test. Allow the test to complete before continuing. The result of the test is shown on the Self-evaluation line.
3. Examine the S.M.A.R.T. data provided for the HDD. Check to ensure that the data in the value and Worst column does not exceed the data in the Threshold column.

**NOTE**

*S.M.A.R.T. data provided by each HDD manufacturer is usually different. Refer to the manufacturer's website for S.M.A.R.T. data definitions.*

## Bad Sector Detection

1. Open the Bad Sector Detection menu. Go to **Menu | HDD | HDD Detect | Bad Sector Detection**
2. On the **HDD No.** line, open the drop down list and select the number of the HDD you want to test.
3. Click the **Detect** button to start the detection. Bad sectors are identified in the array as red colored cells.



Click **Pause** to temporarily stop the scan, and click **Cancel** to end the scan.

Click **Error info** to see the detailed damage information.

## 2.8 Configuring Exception Alarms

The DVR monitors for and respond to certain system-related alarm conditions (exception alarms). Monitoring for and response to these exceptions are configurable.

Exception alarm conditions include:

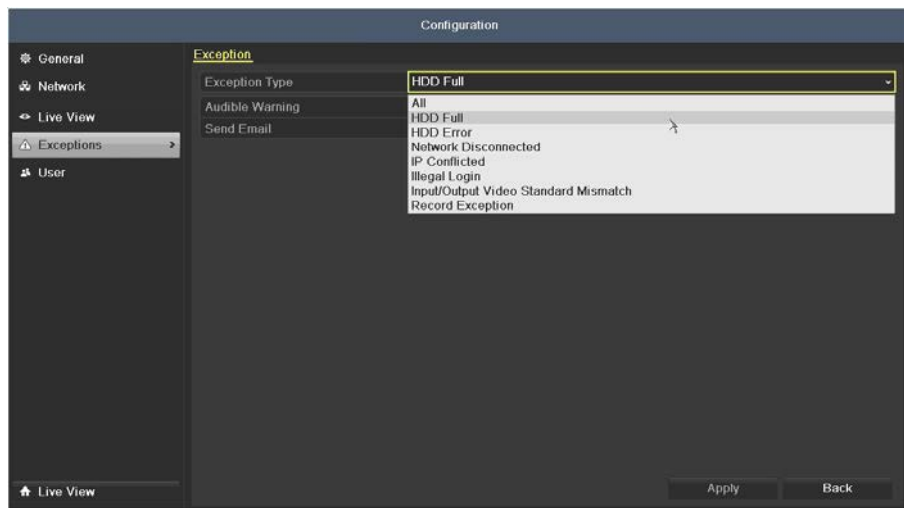
- **HDD Full:** The HDD is full.
- **HDD Error:** Writing HDD error or unformatted HDD.
- **Network Disconnected:** Disconnected network cable.
- **IP Conflicted:** Duplicated IP address.
- **Illegal Login:** Incorrect user ID or password.
- **Input/Output Video Standards Mismatch:** I/O video standards do not match.
- **Record Exception:** No space exists for saving recorded files.

Responses to exception alarms include:

- **Audible Warning:** Trigger an audible beep when an alarm is detected.
- **Send Email:** Send an email with alarm information to a user or users when an alarm is detected.

To configure exception alarms:

1. Open the **Exception** menu. Go to **Menu | Configuration | Exceptions**



2. On the **Exception Type** line, open the drop down list and select the exception condition you want to configure. If you select **All**, all exception conditions will be treated the way you configure the response.
3. Select either of the following response options: Audible Warning or Send Email.
4. Click **Apply** to save your settings.
5. Repeat these steps for other Exception Types you want to configure.

## SECTION 3

# Startup, Shutdown, Reboot

After the DVR and cameras are installed, the DVR system must be configured to function in the surveillance mode(s) that best serve your needs. This chapter includes the essential steps to get your system running, including configuring the DVR date and time, and setting up the LAN interface, cameras and recording modes. Advanced features, including remote access, video export, adding user names and setting user permissions, etc. are described in later sections of this manual.

## 3.1 Starting Up, Shutting Down and Rebooting the DVR

### 3.1.1 Startup

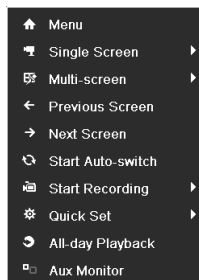
Proper startup and shutdown procedures are essential for getting the most out of your DVR. To startup:

1. Check the power cable is plugged into a standard electrical outlet. It is HIGHLY recommended that an Uninterruptible Power Supply (UPS) be used in conjunction with the device.
2. Rock the **POWER** switch on the back panel to the on ("I") position. The Power indicator LED on the front panel should turn green indicating that the unit is powered on.
3. After startup, the Power indicator LED remains green. A splash screen will appear on the monitor.

### 3.1.2 Shutdown

To shut down the DVR:

1. Right click anywhere on the desktop to open the pop-up window, then select **Menu**.



2. If a **Login** window opens, select a User Name with administrative privileges, enter the appropriate Password, then click **OK**.

**NOTE** The default User Name with administrative privileges and its associated Password are **admin** and **1111**.

3. In the **Menu** window, click the **Shutdown** icon, then click **Shutdown** in the pop-up window.



4. Click **Yes** in the **Attention** window.
5. When the message **Please power off!** appears, rock the power switch on the back panel to the off ("0") position.

### 3.1.3 Rebooting the DVR

In the Shutdown menu, you can also reboot the DVR.

1. Open the Shutdown menu by clicking **Menu | Shutdown**.
2. In the **Menu** window, click the **Shutdown** icon, then click **Reboot** in the pop-up window.
3. Click **Yes** in the **Attention** window.



## SECTION 4

### Live View Interface



The Live View interface is the primary camera viewing and monitoring mode. It can be configured to present video from the cameras configured in the system singularly or in multi mode, or using a “patrol” feature wherein video from each of a select group of cameras is displayed singularly and sequentially, with each camera view shown for a preset duration (dwell). The Live View screen can be configured to display 1, 6 or 8 camera channels concurrently, or playback recorded video.




*Live View 2 \* 2 multi-screen display*

Each camera channel displayed on the Live View screen may contain one or both status icons in the upper-right corner of the viewing frame.

#### Live View Status icons

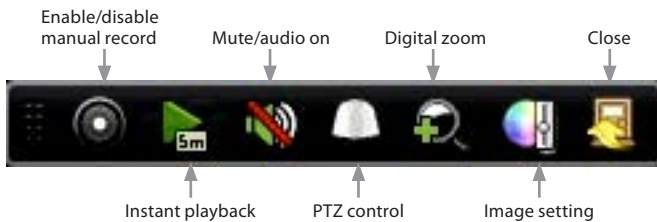
| Icon  | Type   | Reason   |
|---|--------|--|
|  | Alarm  | Video loss, tampering, motion detection or sensor alarm                    |
|  | Record | Manual record, schedule record, motion detection or alarm triggered record |



| Icon  | Type             | Reason                       |
|---|------------------|------------------------------|
|   | Record and Alarm | Both alarm and record status |

## 4.1 Quick Setting Toolbar

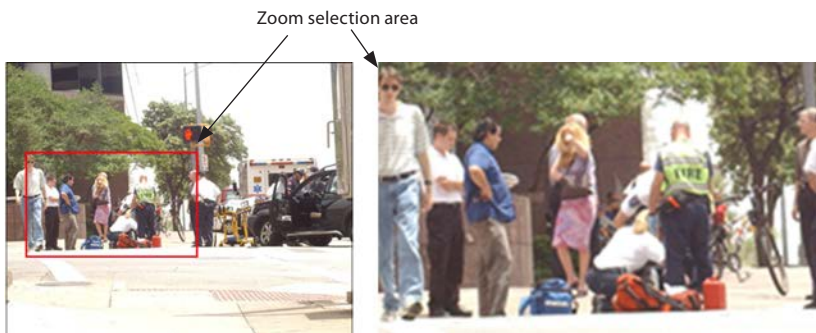
Left-clicking the mouse on a viewing frame opens a Quick Setting Toolbar at the top or bottom of the frame.



**Instant Playback:** Plays what was recorded in the previous five minutes. Nothing is played if a recording was not made at that time.

**PTZ Control:** Opens the PTZ control menu.

**Digital Zoom:** Shows the selected portion of the camera image in full-screen mode. To select an area, left-click and drag to form a rectangle across the area to expand. See the figure below.

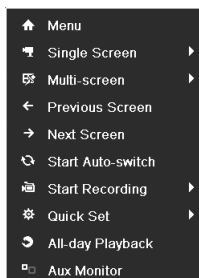


**Image Settings:** Click this icon to open menus for creating customized setting for the brightness, contrast, saturation, hue, sharpness and noise reduction of the camera image. You can configure different settings for each of two periods, use preset settings, and/or configure settings manually. After making an adjustment on in this menu, the DVR will respond within a few seconds. Click **OK** when your adjustments are complete.



## 4.2 Live View pop-up menu

Right-clicking the mouse on the desktop opens the pop-up window shown below.



Clicking one of the items listed produces the result described below.

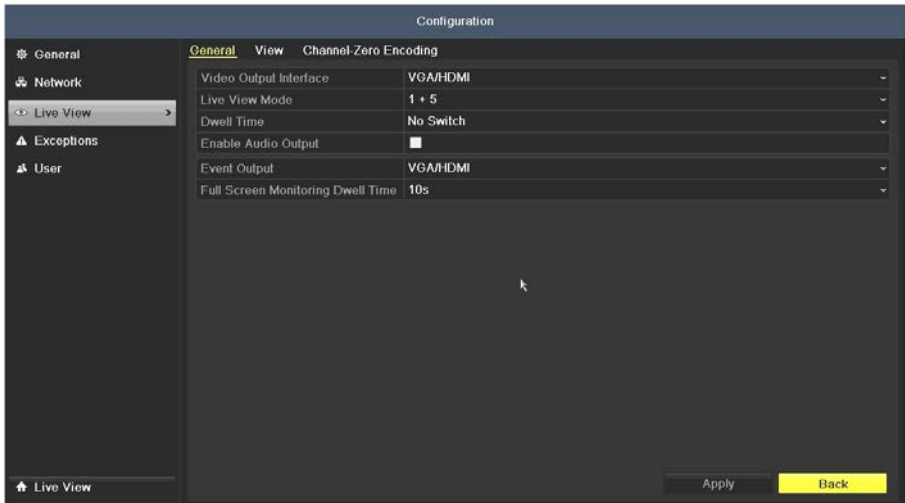
- **Menu:** Opens the configuration menu window. See “SECTION 5 Record, Playback and Video Backup” on page 37.
- **Single Screen:** showing only one camera channel on the monitor. Open the drop-down list to select the camera channel you want to view.
- **Multi-screen:** opens a submenu where you can choose from several multi-channel screen configurations, including 2\*2, 1+5, 1+7, 3\*3, in multi-screen mode, you can view video from multiple camera channels simultaneously.
- **Previous screen:** Move to the screen displayed previously.
- **Next screen:** Move to the screen displayed after the current one.
- **Start Auto-switch:** the screen is automatically switched from one camera channel to the next. You must set the dwell time before enabling auto-switch. Go to **Menu | Configuration | Live View | Dwell Time**.
- **Start Recording:** Select **Normal Record** and **Motion Detection** record from the drop-down list.
- **Quick Set --> Output Mode:** opens a menu where you can select the output mode to **Standard**, **Bright**, **Gentle** or **Vivid**. Select the option that produces the best looking screen.
- **All-day Playback:** Opens a playback menu where you can playback video recorded at a specific time of the day. In If in Multi-screen mode, double-click on the viewing frame of the camera recording video you want to replay, then select All-day Playback. A marker on the timeline shows the time recording being played back was made.

- **Aux Monitor:** Switch to the auxiliary output mode (CVBS). The operation of the main output is disabled.

### 4.2.1 Live View settings

Live View settings can be customized according to differing needs. You can configure the screen frame split, placement of camera channels on the screen, dwell time for screen to be shown, mute or turning on the audio, the screen number for each channel, etc.

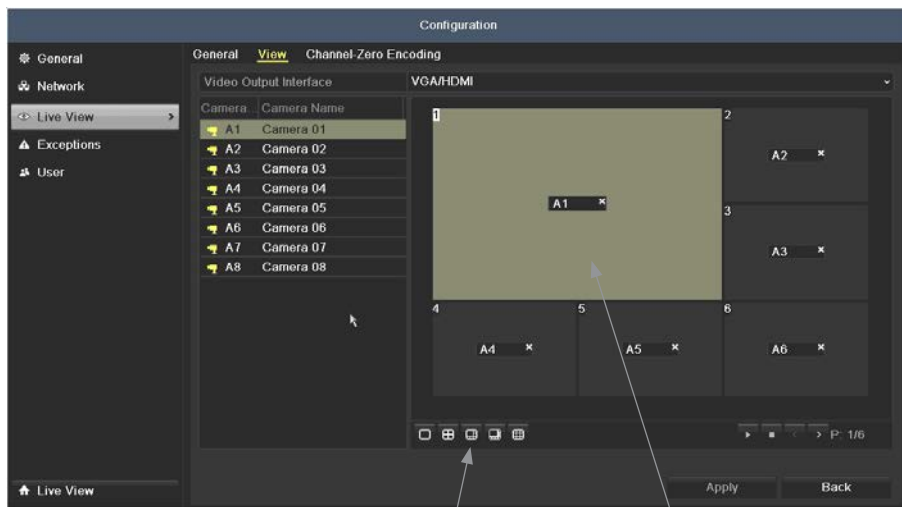
1. Open the Live View Settings menu. Go to **Menu | Configuration | Live View**



Adjust the settings in the screen as needed:

- **Video Output Interface:** Designates the output to configure the settings for. Option includes Main CVBS and VGA/HDMI.
  - **Live View Mode:** Designates the display mode (screen split) to be used for Live View.
  - **Dwell Time:** The time in seconds to dwell between switching channels when auto-switch is enabled in Live View.
  - **Enable Audio Output:** Enables/disables audio output for the selected video output.
  - **Event Output:** Designates the output to show event video. Option includes only VGA/HDMI.
  - **Full Screen Monitoring Dwell Time:** The time in seconds to show alarm event screen.
2. After changing settings in the screen shown above, click the **Apply** button at the bottom of the screen, and then click **Back**.
  3. Click the **View** tab at the top of the screen.

## SECTION 4: LIVE VIEW INTERFACE



Single-, multi-screen select icons      Viewing screens

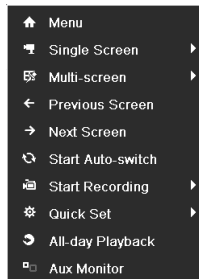
4. Click the single- or multi-screen select icon for the screen split you prefer. In the example shown above, a 1\*5 screen is selected.
5. Click a viewing screens, then double-click the camera in the list on the right that you want to show there. When the selection is made, label in the viewing screen changes to the camera channel number.
6. Click the **Apply** button to save your setting.

## SECTION 5

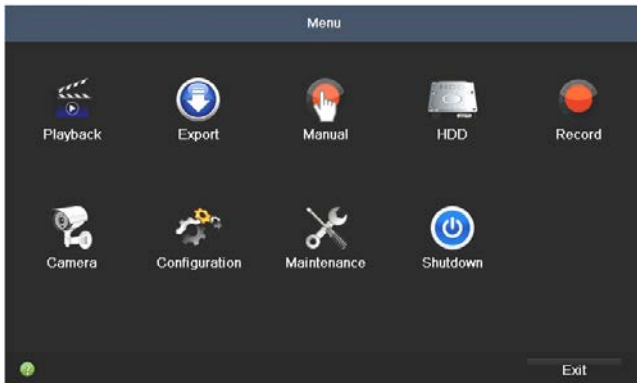
# Record, Playback and Video Backup

After the initial setup of your DVR using the Wizard, the Menus interface enables you to refine your configuration settings and expand the functionality of the system. To use most menus, the user must log into the DVR system, either locally or remotely, with administrative privileges.

To open the Menu system from the Live View screen, right click anywhere in the screen, then select **Menu**.



After selecting **Menu**, a login window will open. In the Login window, select a User Name with administrative privileges, enter its password, then click **OK**. A window of Menu icons will open. **NOTE:** When the system option **Enable ID Authentication** is disabled (see the **Configuration - General** settings submenu), the Login window to open the Menu does not appear.



## 5.1 Configuring record settings

### 5.1.1 Setting camera encoding parameters

1. Enter the **Record** settings interface to configure the encoding parameters. Go to **Menu | Encoding | Record**



2. Select the **Record** tab page you want to configure. You can configure the stream type, the resolution, and other parameters.
  - **Pre-record:** The length of time you set to record before the scheduled time or event. For example, when an alarm triggered the recording at 10:00, if you set the pre-record time as 5 seconds, the camera records it at 9:59:55.
  - **Post-record:** The length of time you set to record after the event or the scheduled time. For example, when an alarm triggered the recording ends at 11:00, if you set the post-record time as 5 seconds, it records till 11:00:05.
  - **Expired Time:** The expired time is the longest time a recording is kept on the HDD. If the deadline is reached, the file will be deleted. If you set the expired time to 0, the file will not be deleted. This parameter is usually determined in consideration of the capacity of the HDD.
  - **Record Audio:** Check the checkbox to enable audio recording.
3. Click **Apply** to save your new configuration settings.
4. Open the **Sub-stream** tab page.

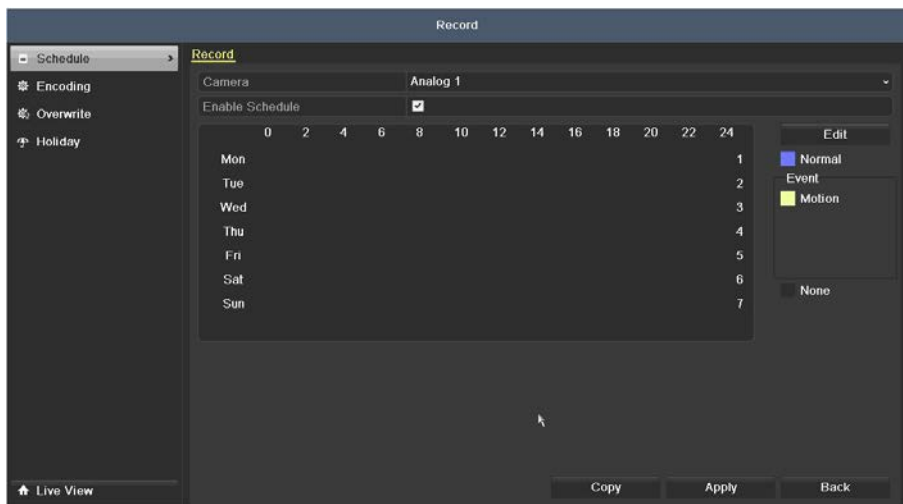


- a. Configure the parameters of the camera.
- b. Click **Apply** to save the settings.

### 5.1.2 Configuring Record schedule

The record schedule can be used to automatically start and stops recording at preset times.

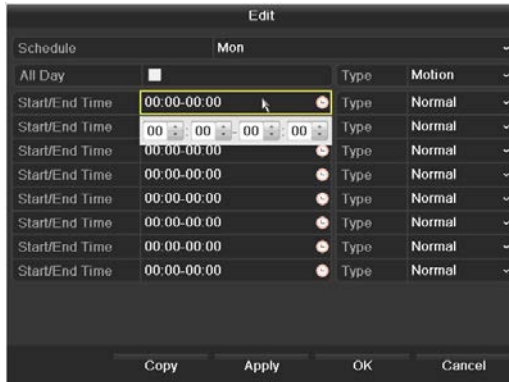
1. Open the Record Schedule menu. Go to **Menu | Record | Schedule**



2. To configure the Record schedule:
  - a. Open the **Camera** drop-down list to select the camera you want to configure.

## SECTION 5: RECORD, PLAYBACK AND VIDEO BACKUP

- b. Check the **Enable Schedule** box.
- c. Click **Edit**, or use the graphical method to apply recording modes to hours of the day.
  - i. If you clicked the **Edit** button, a record schedule list opens.



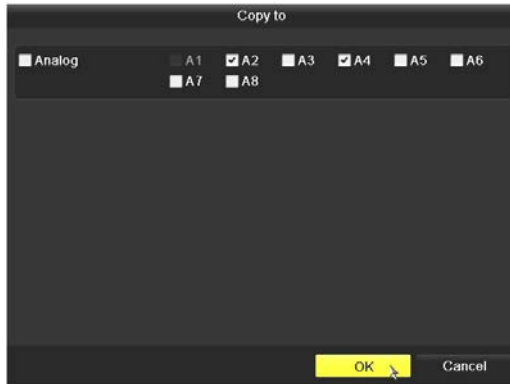
- Open the **Schedule** line drop down list and select the day for which you want to create a record schedule.
- To schedule all-day recording, check the checkbox after the All Day item. To setup specific start and end times, click the clock icon to open a time setting popup window.
- In the **Type** column, select the type of recording trigger you want to use. “**Normal**” recording is continuous recording. “**Motion**” recording is recording triggered by some kind of motion detected in the video image.
- Click **Apply** to save your settings.

### NOTE

You can define up to eight recording time periods for each day, each with a specified recording type. Recording time periods cannot overlap with each other. Each recording period can use either Normal or Motion triggered recording.

- Repeat the steps above to schedule recording for other days of the week. If the same schedule can also be applied to other days, click **Copy** (see the window below), select the days you want to copy the schedule to, then click **OK**.

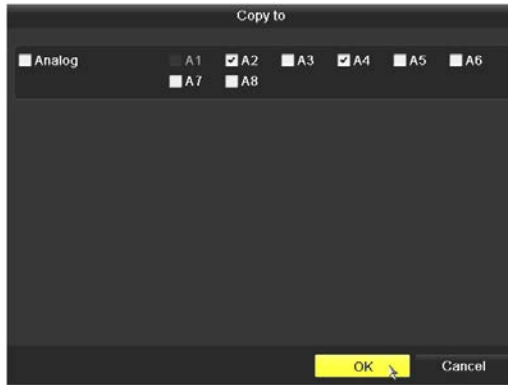




- ii. To use the **graphical method** to draw the schedule:
  - Click the color icons for either Normal or Motion in the right panel.
  - Drag the mouse pointer across the area of the chart (day of the week, hours of the day) where you want to use that type of recording. Blocks on the chart, each representing 1 hour of one day, will be colored for the recording mode you selected. A descriptions of the color icons are shown in the figure below.



- Click **Apply** to validate the settings.
3. If the settings can be applied to other camera channels, click **Copy**.

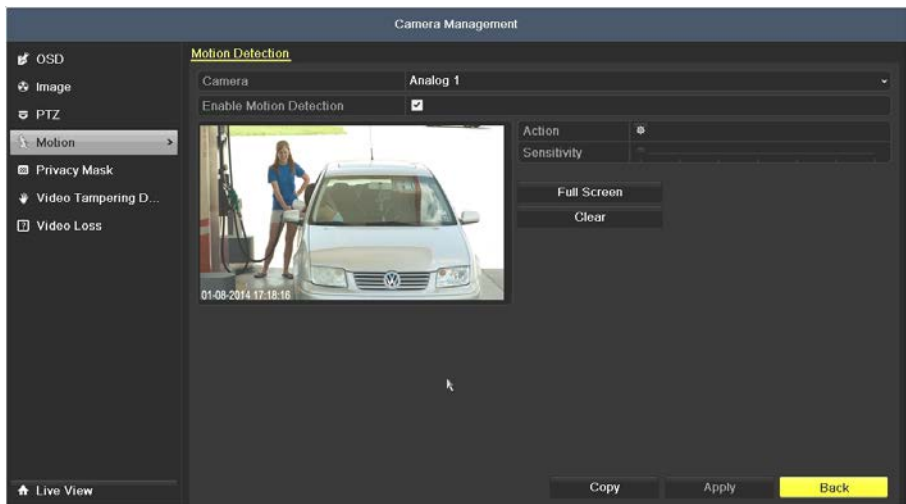


- In the **Copy** menu, click the channels you want to copy the schedule to, then click **OK**.

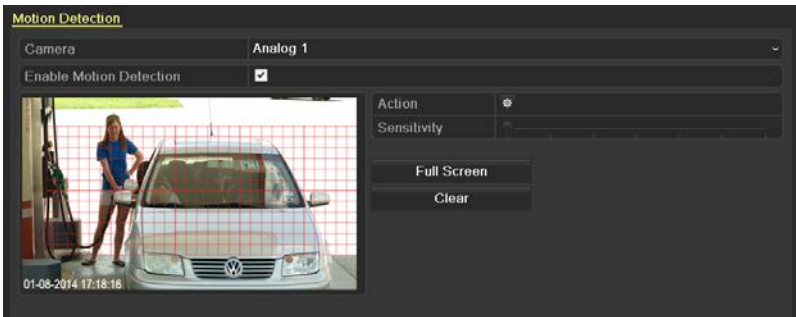
### 5.1.3 Configuring Motion Detection Recording

Follow the steps to set the motion detection parameters. A motion detection events can trigger several kind of actions by the DVR, including channels to start recording, full screen monitoring, an audio warning, notification sent to the surveillance center, etc. Follow the steps below to schedule a recording triggered by a motion detection.

- Open the Motion Detection menu. Go to **Menu | Camera | Motion**



2. To configure Motion Detection:
  - a. Choose camera you want to configure.
  - b. Check the **Enable Motion Detection** box.
  - c. Use the mouse to drag a rectangle across the area where you want to detect motion. If you want to sense for motion detection in all areas of the video, drag a rectangle across the entire video screen or click **Full Screen**. You can select to multiple areas (rectangles on the screen) where motion will be detected.

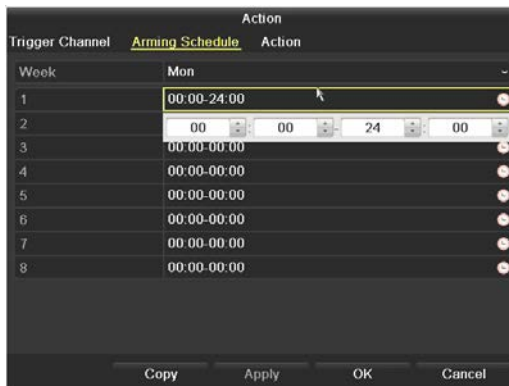


To clear the motion detect zone you defined, click the **Clear**.

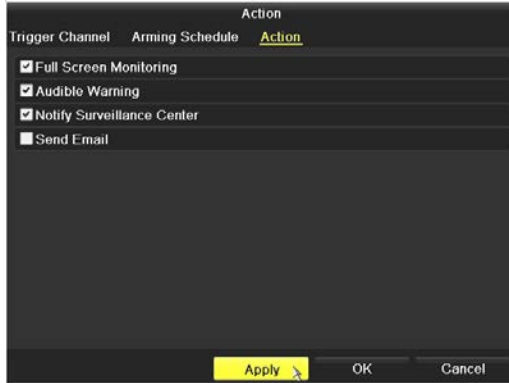
- d. Click **Apply** to save your settings.
- e. Test the effectiveness of your settings by passing objects through the motion detect zone to trigger recording. Adjust the Sensitivity slider to refine the
- f. Click copy your settings to other cameras, click **Copy**, then select the cameras you want to copy the settings to. Click **OK** to save your configuration and close the window.
- g. Click the **Action** icon.



- h. In the Action **Trigger Channel** window, select the other channels that should trigger recording on this channel, then click **Apply** to save your settings.
- i. Click the **Arming Schedule** tab. With the Arming Schedule, you can define up to eight periods for each day of the week. Time periods cannot overlap.



- j. Click **Apply** to save the settings. You can also click Copy to copy the Arming Schedule setup in the window to other days of the week.
- k. Click the **Handling** tab. In the Handling tab, you can cause certain actions to occur when motion triggered recording occurs.



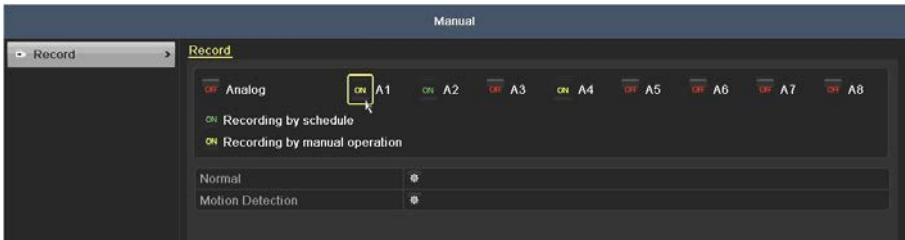
- I. Select the actions you want to occur, then click **Apply** to save your settings, and **OK** to return to the Motion Detection menu.

**NOTES:** The **Notify Surveillance Center** and **Send Email** options require additional network settings. See "SECTION 7 Network Settings" on page 79 for more information.

### 5.1.4 Manual record

Follow the steps below to begin manual recording. Manual recording, once initiated, requires a manual cancel of the record. The manual recording can occur prior to the scheduled recording.

1. Open the Manual settings menu. Go to **Menu | Manual**.



2. To enable Manual Record:
  - a. Select **Record** on the left menu frame.
  - b. Click the status button before camera number to change the label from OFF to ON, if necessary.
  - c. Click the icon after **Normal** or **Motion Detection**.

- d. When the Attention window opens, click **Yes**.



3. To disable Manual Record:
  - a. Select **Record** on the left menu frame.
  - b. Click the status button before camera number to change the label from **ON** to **OFF**.
  - c. Click the icon after **Normal** or **Motion Detection**.
  - d. When the Attention window opens, click **No**.

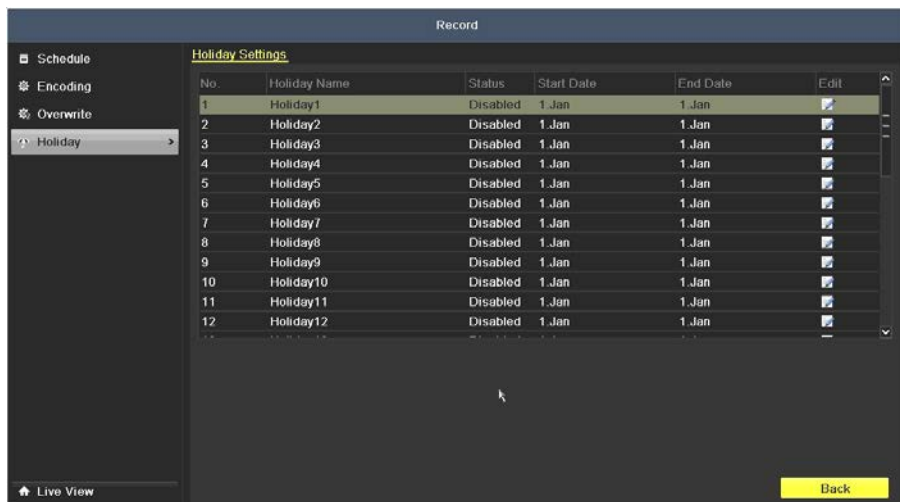
### NOTE

Green "ON" icon means that the channel is configured with a record schedule.  
If the DVR is rebooted, manual record operations are canceled.

## 5.1.5 Configuring Holiday recording

Follow the steps below to configure the record schedule on holiday for that year. You may want to have different plan for recording on holidays.

1. Enter the Record setting interface. Go to **Menu | Record | Holiday**



2. To Edit Holiday schedule.
  - a. Click the icon in the Edit (right) column of the line you want to edit. The **Edit** window will open.

| Edit  |                                     |
|---|-------------------------------------|
| Holiday Name  | Holiday1                            |
| Enable  | <input checked="" type="checkbox"/> |
| Mode  | By Month                            |
| Start Date  | Jan 1                               |
| End Date  | Jan 1                               |
| <div> <span>Apply</span> <span>OK</span> <span>Cancel</span> </div> |                                     |

- b. In the **Edit** menu, check the **Enable** box.
  - c. Select Mode from the drop-down list to select the duration. There are three different modes for the date format to configure holiday schedule: Date, Week, and Month.
  - d. Set the start and end dates.
  - e. Click **Apply** to save settings.
  - f. Click **OK** to exit the Edit menu.
3. Open the Record Schedule settings menu to edit the holiday recording schedule. See “5.1.2 Configuring Record schedule” on page 39.

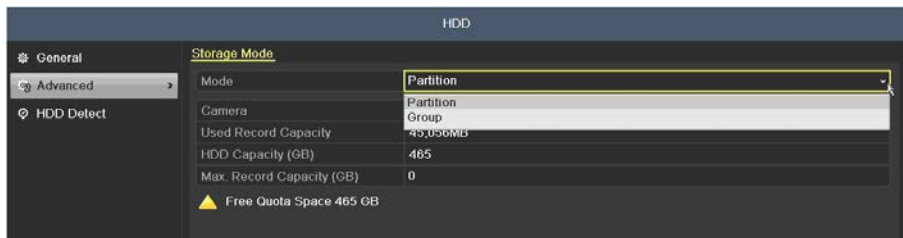
### 5.1.6 Configuring HDD Group for Recording

You can group the HDDs and save the record files in a specific HDD group. You must have multiple HDDs installed in the system to perform this configuration.

1. Open the HDD menu. Go to **Menu | HDD**

| HDD     |          |                 |        |          |       |            |       |        |
|---------|----------|-----------------|--------|----------|-------|------------|-------|--------|
| General |          | HDD Information |        |          |       |            |       |        |
|         | Label    | Capacity        | Status | Property | Type  | Free Space | Group | Delete |
| 1       | 465.76GB | Normal          | R/W    | Local    | 409GB | 1          | -     | -      |

- Click **Advanced** in the left frame to open the **Storage Mode** menu.



- In the **Mode** drop down list, select **Group**. The Group definition window will open.



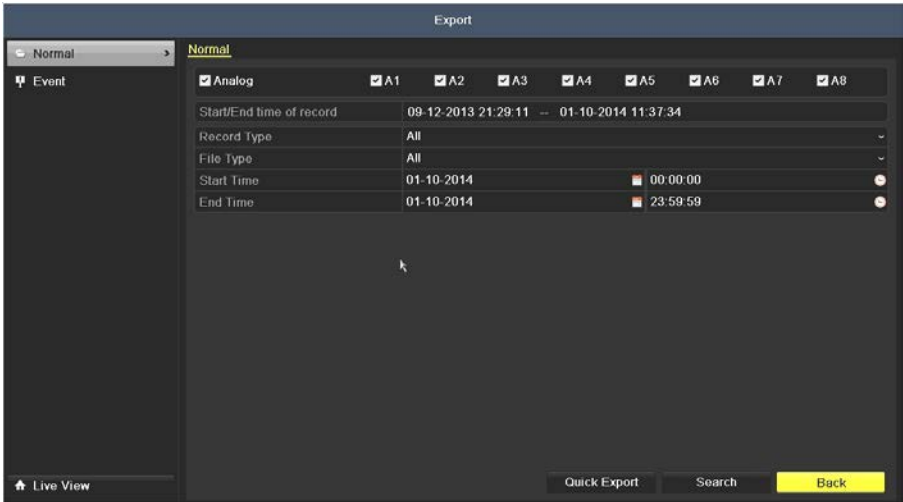
- Click **Apply** to create the group. **NOTE:** Creation of a group will force a DVR reboot.

### 5.1.7 Files Protection

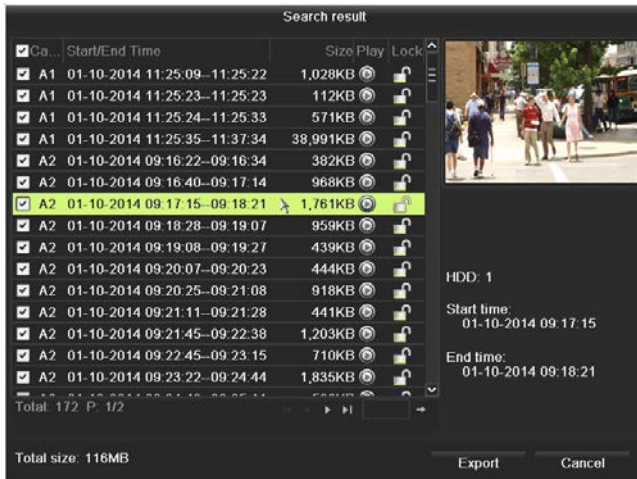
You can lock the recorded files or set the HDD property to Read-only to protect the record files from being overwritten.

- Open the **Export** menu. Go to **Menu | Export**





2. Check the box(es) for the channel(s) you want to investigate.
3. Configure the record type, File Type (locked or unlocked), and Start Time and End Time.
4. Click **Search** to show the results.



5. To protect the record files:

## SECTION 5: RECORD, PLAYBACK AND VIDEO BACKUP

- a. Determine which files you want to protect, and then click the icon in the Lock column to show a “locked” padlock (indicating that the file is locked). Similarly, unlock files by clicking on the “locked” icon to show an “unlocked” padlock.
- b. Respond appropriately to the **Attention** pop-up window.



**NOTE** *File of recording in progress cannot be locked.*

## 5.2 Playback

### 5.2.1 Playing back video by channel

Playback the recorded video files of a specific channel in the live view mode. Channel switch is supported.

#### Instant playback by channel

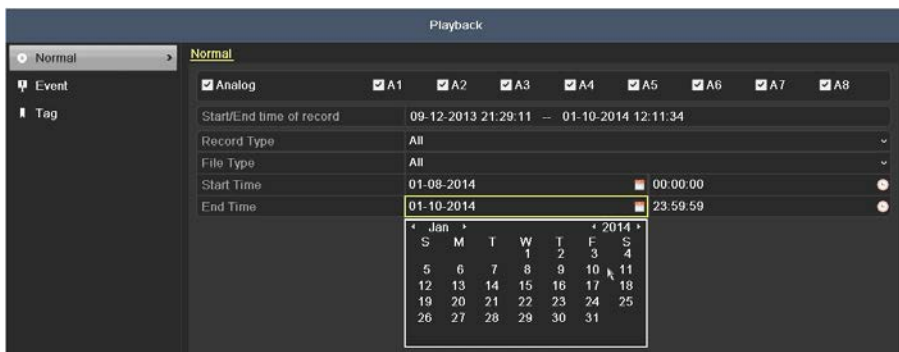
In Live View mode, click the channel you want to playback, then click the playback icon on the quick setting toolbar. In the instant playback mode, only recordings made during the previous five minutes on the channel are played.



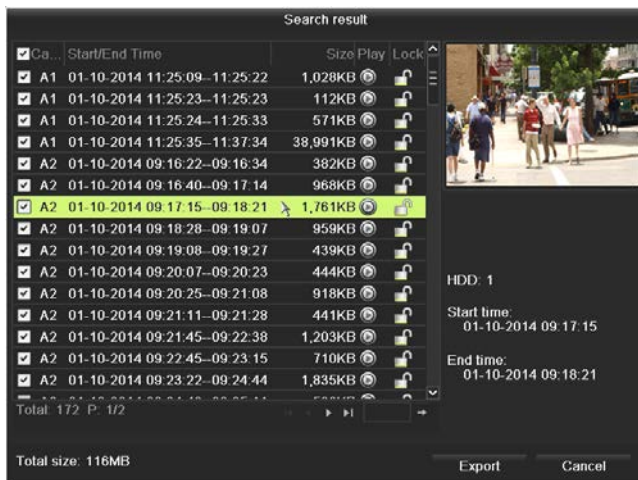
### Playback by channel

1. Open the Playback menu. Go to **Menu | Playback**.
2. In the **Playback** screen, select the camera channel you want to playback. De-select the other channels.
3. Select the start and end times of the date and time range when the video segment was recorded.

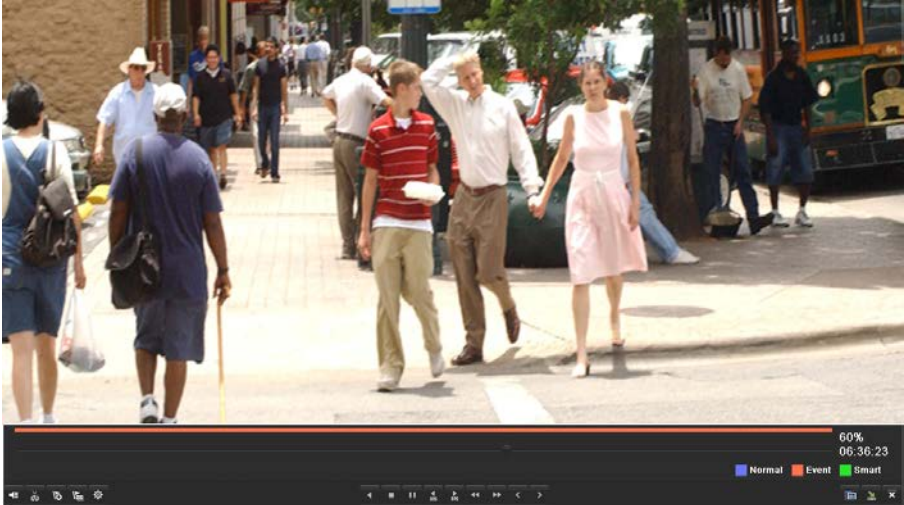
## SECTION 5: RECORD, PLAYBACK AND VIDEO BACKUP



4. Click the **Search** button.

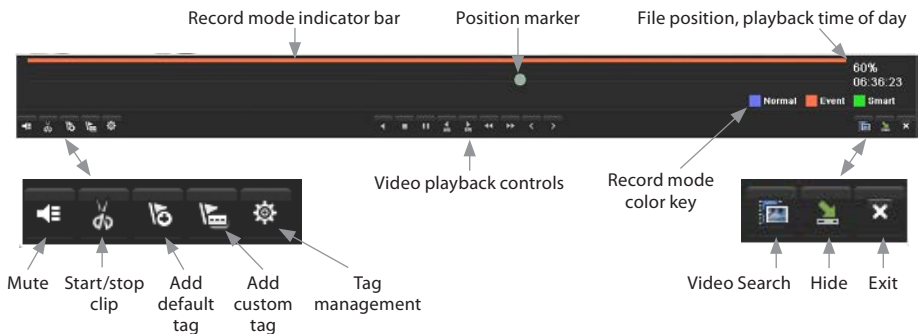


5. In the window that opens, click the entry of the video segment you want to play, then click the icon in the **Play** column.
6. In the screen that opens, select the camera or cameras you want playback, then click **OK** to continue. By default, only the camera of the video you selected will play.



To open the **Results** list ( the right frame - see above), move the mouse pointer to the right edge of the screen. You can play a different video segments by clicking the segment to highlight it, then clicking the **Play** icon associated with it. Move the mouse pointer away from the right side to close the frame.

The Playback control panel is shown below. The line across the top of the control panel shows the mode that initiated the recording. In the example above, the entire recording resulted from a normal, continuous recording configuration option.

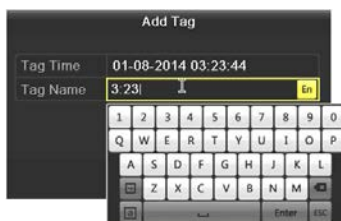


Video playback controls allow you to control the speed and direction of the playback. You can also drag the file position marker to another position in the file.

You can hide the control panel during playback by clicking the Hide icon in the lower right corner. To exit playback, right click in the video frame, then select **Exit**, or click the Exit icon in the lower right corner.

## SECTION 5: RECORD, PLAYBACK AND VIDEO BACKUP

The tag management icons in the lower left corner allow you to “tag” the video segment with a unique name. Click the **Add Tag** icon to open the Add Tag pop-up menu, then enter a Tag name. Tagged videos can easily searched for and retrieved later.



Right click anywhere on the video frame to open a pop-up menu. With this menu, you can return to Video Search, zoom in on the video, open and close the control panel at the bottom of the screen, and Exit.



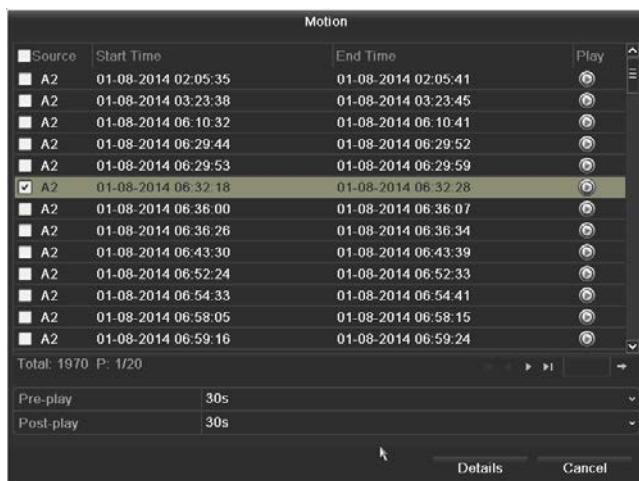
### 5.2.2 Playing back a motion event

The DVR can search for and playback recordings triggered by motion events.

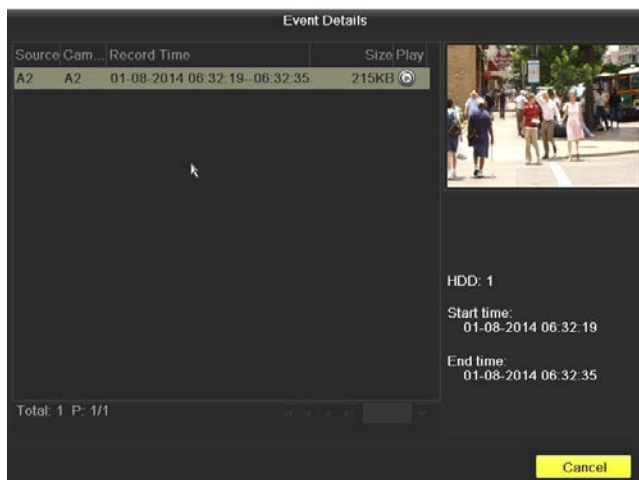
1. Open the Playback menu. Go to **Menu | Playback**
2. In the left frame, click **Event**.



3. In the drop **Event Type** down-down list, select, for example, **Motion**.
4. Open the calendar and time pop-up windows to select the Start Time and End Time of the timespan you want to search.
5. Check the boxes of the cameras associated with the motion search.
6. Click **Search** to generate a list of motion detected events.



7. Click **Details** to preview video from the event and see more information about the video clip.



8. Select the video clip from the list, then click the **Play** icon associated with it.



The control panel at the bottom of the screen is described earlier in this section. See “5.2.1 Playing back video by channel” on page 50.

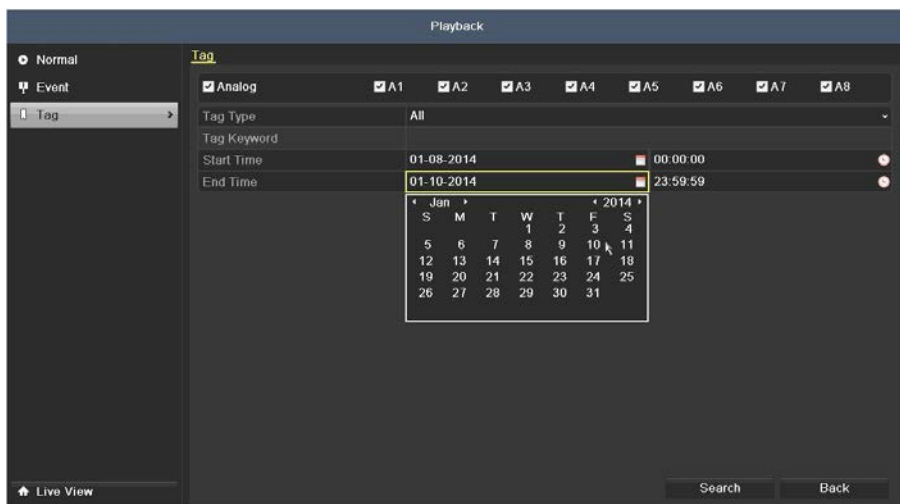
9. To open the search result list during video playback, move the mouse cursor to the right edge of the screen. In this example, only one clip is listed. If others are listed too, click the Play icon to see it.

### 5.2.3 Playback by Tag

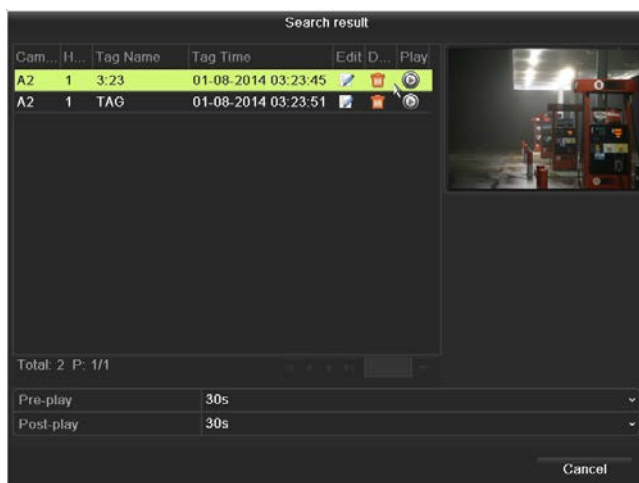
You can easily search for and play back video files that were tagged.

1. Open the Playback menu. Go to **Menu | Playback**
2. In the left frame, click **Tag**.
3. Check the boxes of the cameras associated with the tagged video files.
4. Open the calendar and time pop-up windows to select the **Start Time** and **End Time** of the timespan you want to search.





- Click **Search** to generate a list of tagged video files.



- Select the video clip from the list, then click the **Play** icon associated with it. The control panel at the bottom of the screen is described earlier in this section. See "5.2.1 Playing back video by channel" on page 50.
- To open the search result list during video playback, move the mouse cursor to the right edge of the screen.

## SECTION 5: RECORD, PLAYBACK AND VIDEO BACKUP

- To playback a different motion event video clip, click the segment to highlight it, then click the associated **Play** icon.



In the screen above:

- Click the **Add default tag** icon in the lower left corner of the screen during video playback to add a default tag.
- Click the **Add customized tag** icon in the lower left corner of the screen during video playback to add a customized tag.

**NOTE:** You can add up to 64 tags to a single video file.

### Tag management.

The tag management feature allows you to check, edit, and delete tags.

- Click the **Tag management** icon in the lower left corner of the screen to open the **Tag management** window.
  - To change the name of a tag, select (highlight) a tag in the list, then click the icon in the Edit column.
    - Click the tag name, use the pop-up keyboard to change the name, click **Enter**, then click **OK**.
  - To delete a tag, select (highlight) a tag in the list, then click the icon in the Delete column.

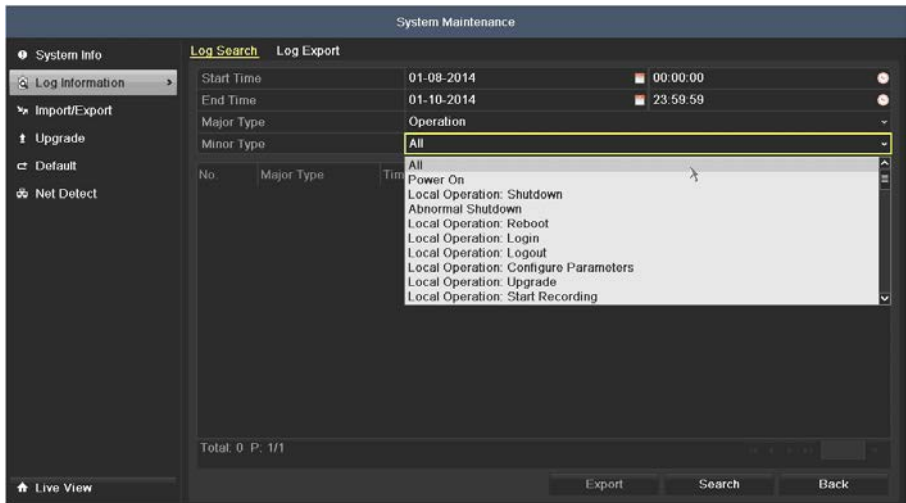
### 5.2.4 Playback from System Logs

You can search for video clips through system logs. System logs include the following types of entries:

- Alarms events – Start/stop motion detection, start/stop tamper detection etc.
- Exception conditions – Video loss, illegal login, HDD full/error, IP camera disconnected, network disconnected, etc.

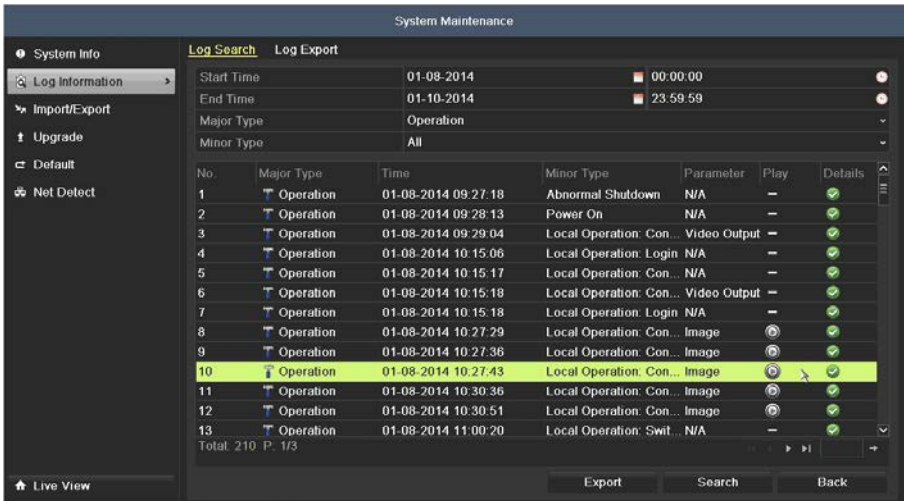
- Information events - Start/stop recording, local/network HDD information, HDD S.M.A.R.T., etc.
- Operation events - power on, login, local operation logout, etc.

1. Open the Log Information screen. Go to **Menu | Maintenance | Log Information**
2. Click **Log Search** tab to enter Playback by System Logs.
3. Select a Start Time, End Time, Major Type and Minor Type.



4. Click **Search**. If the search didn't find a file matching your search criteria, the message **No matched log file.** will appear.

## SECTION 5: RECORD, PLAYBACK AND VIDEO BACKUP



- Choose a log with record file and click the **Play** icon to play the file, or click the icon in the **Details** column to see more information about the entry. If there is no playback file associated with the log entry, the message box **No result found.** will appear. The **Log Information** details screen is shown below.



### 5.2.5 Auxiliary Functions - Playback frame by frame

Play video files frame by frame, in case of checking image details of the video when abnormal events happen.

#### Using a Mouse:

Go to **Menu | Playback**

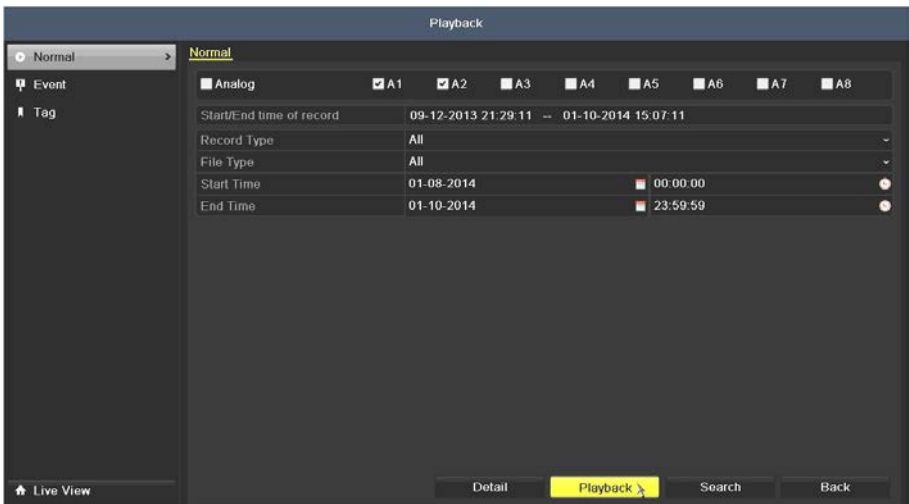
Playback a file. During playback, click the button ◀◀ until the speed changes to **Single**. One click on the playback screen advances playback to the next frame forward. Click ▶▶ to increase the playback speed in forward.

During reverse playback click the button ◀◀ until the speed changes to **Single**. One click on the playback screen advances playback to the next frame in reverse. Click ▶▶ to increase the playback speed in reverse.

### 5.2.6 Auxiliary Functions - Reverse Playback of Multi-channel

You can play back record files of multi-channel reversely. Up to 8-ch (with 1280\*720 resolution) simultaneous reverse playback is supported; up to 4-ch (with 1920\*1080p resolution) simultaneous reverse playback is supported and up to 1-ch (with 2560\*1920 resolution) reverse playback is supported.

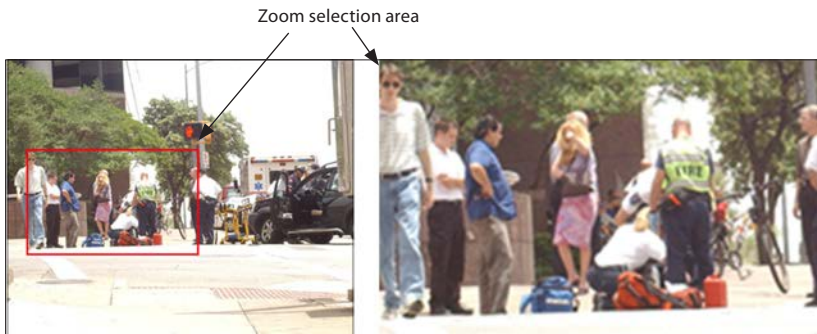
1. Open the Playback menu. Go to **Menu | Playback**
2. On the IP Camera line, select multiple IP cameras by checking the boxes associated with them.



3. Click **Playback** to play back the record files, then click the reverse control icon to play the files in reverse.

## **5.2.7 Digital Zoom**

1. Click the magnifier button on the playback control bar to enter Digital Zoom screen.
2. Use the mouse to draw a rectangle over the area you want to zoom in on. The area can be enlarged up to 16 times the original size on the screen.



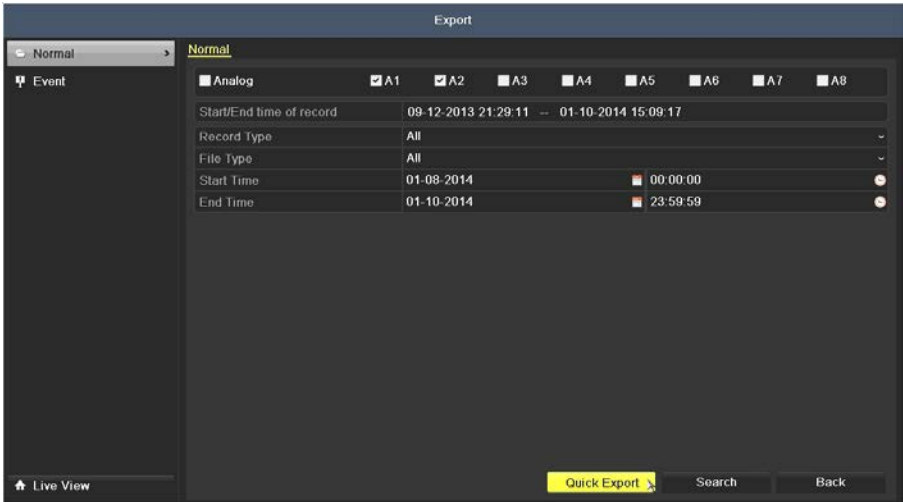
3. Right-click on the image to exit the digital zoom mode.

## **5.3 Backing up Record Files - Export**

### **5.3.1 Quick Export**

The Quick Export feature allows you to easily export (backup to an external device) video clips recorded over a 24 hours period from up to four selected camera channels.

1. Attach an USB storage device, such as a USB flash drive or USB disk drive, to the DVR USB port.
2. Open the Export menu. Go to: **Menu | Export | Normal**.
3. Check the boxes for the camera channels you want to back up.
4. Select the **Start Time** and **End Time** of the period when the video clips of interest were recorded. To change the time, click on the field, then select the target date or time from the pop-up menu. The time span cannot exceed 24 hours.



- Click the **Quick Export** button. A pop-up window will open showing the file structure of your external storage device. If your USB device is not shown in the **Device Name** field, click the **Refresh** button.



- If the device you are exporting to is a rewritable device such as a USB flash drive, select the directory where you want to copy the files, or create a **New Folder**. **NOTE:** Some USB devices types do not include the **New Folder** and **Format** options, but may include an **Erase** option.

- Click the **Export** button to start the **Export**. Allow the operation to finish before continuing.



**Note:** The Player utility player.exe will be exported automatically during video file export.

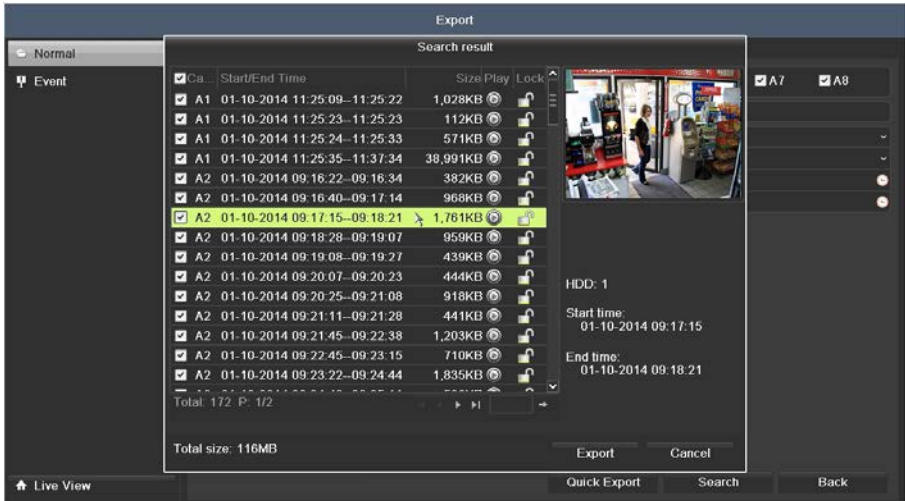
- Verify that the file you exported can be played from the flash device.

### 5.3.2 Export by video search

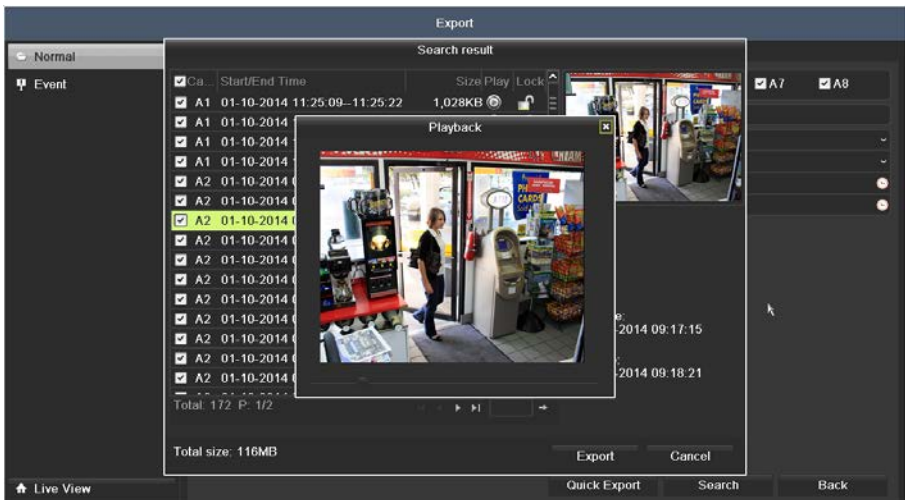
The Export by video search feature allows you to export specific video clips. The export operation writes the selected file(s) to an USB device.

- Attach an USB storage device, such as a USB flash drive or USB disk drive, to the DVR USB port.
- Open the Export menu. Go to: **Menu | Export | Normal**
- Check the boxes for the camera channels you want to back up.
- Select the **Start Time** and **End Time** of the period when the video clips of interest were recorded. To change the time, click on the field, then select the target date or time from the pop-up menu.
- Click **Search** to list the video clips recorded during the selected time span. In the **Search Result** list, you can play the video clip by clicking the icon in the Play column associated with the file.
- Select the video clips you want to export by clicking the checkbox associated with the file. By default, all files are selected. You can deselect all files by clicking the checkbox in the table header, then click the checkboxes for only those files you want to export.
- To play a file in the Search result list:
  - Select and highlight the file.

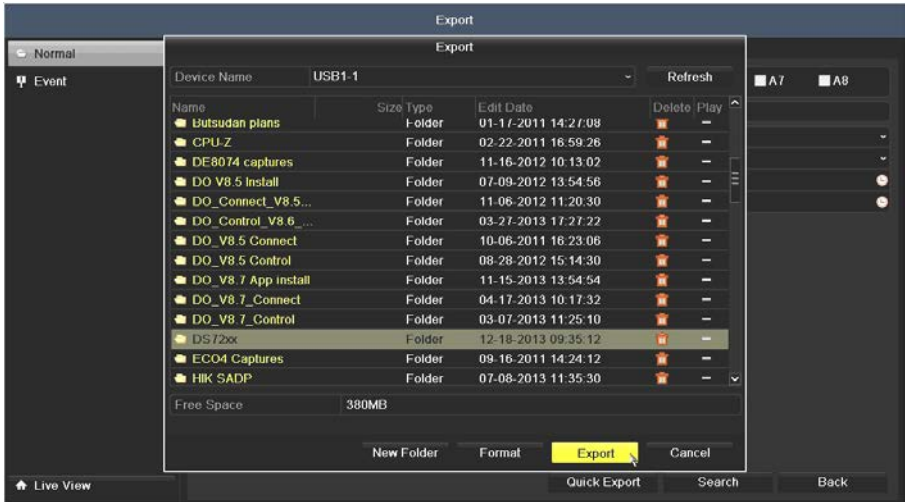




- b. Click the Play icon. A pop up window will appear.



8. Click **Export**. A pop-up window will open showing the file structure of your external storage device. If your USB device is not shown in the **Device Name** field, click the **Refresh** button. **NOTE:** Some USB devices types include the **New Folder** and **Format** options, other types include only an **Erase** option.



9. In the **Export** window, select the directory where you want to copy the files, or create a **New Folder**.
10. Click the **Export** button to start the **Export**. Allow the process to finish before continuing.



**Note:** The Player utility player.exe will be exported automatically during video file export.

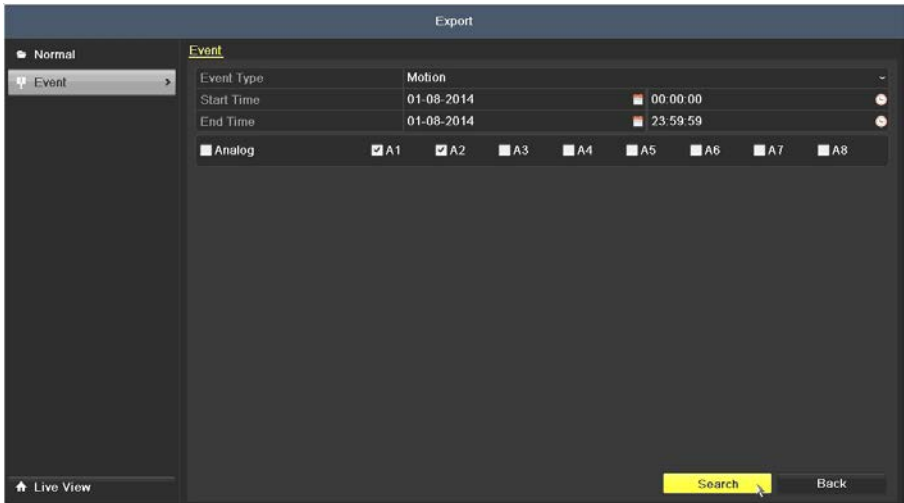
11. Verify that the file you exported can be played from the flash device.

### 5.3.3 Export by Event Search

Video recordings triggered my Events, such as motion detection, can be searched for and exported to a USB storage device such as a USB flash drive or USB disk drive, or USB optical drive.

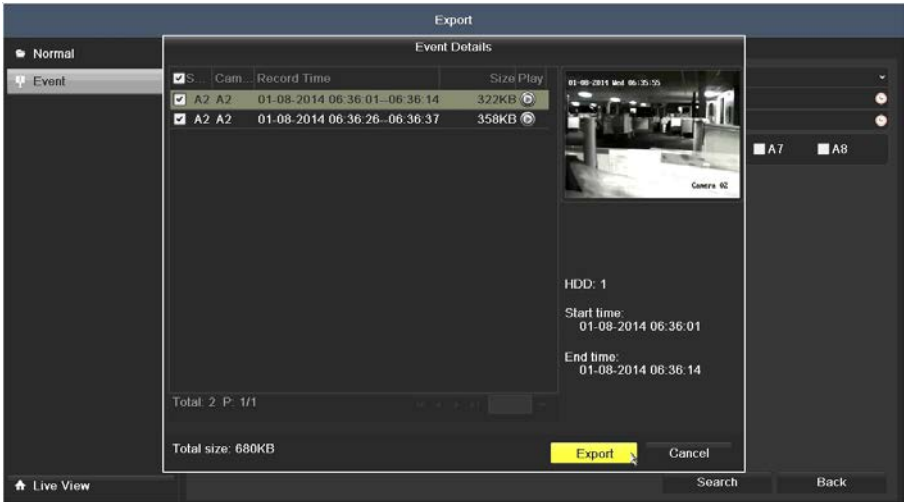
1. Attach an USB storage device, such as a USB flash drive or USB disk drive, to the DVR USB port.
2. Open the Export menu. Go to: **Menu | Export | Event**

- On the Event Type line, select open the drop down list and select, for example, **Motion**.

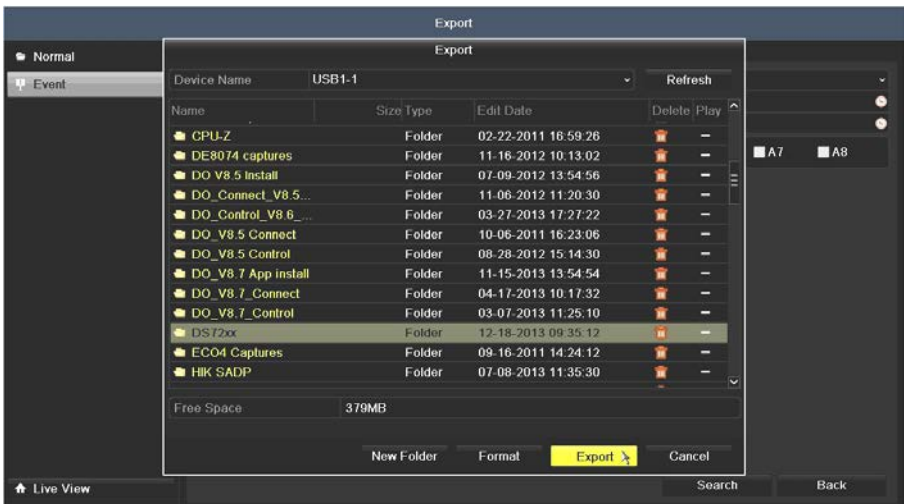


- Check the boxes for the analog cameras you want to search. In the example above, A1 and A2, representing camera channel input 1 and 2, are selected.
- Select the **Start Time** and **End Time** of the period when the video clips of interest were recorded. To change the time, click on the field, then select the target date or time from the pop-up menu.
- Click **Search** to list the video clips recorded during the selected time span.
- To watch a video clip in the **Event Details** list (search result) list, click (highlight) the clip you want to watch, then click the icon in the **Play** column.

## SECTION 5: RECORD, PLAYBACK AND VIDEO BACKUP



8. In the **Events Detail** window, click **Export** to open the Export window. A pop-up window will open showing the file structure of your external storage device. If your USB device is not shown in the **Device Name** field, click the **Refresh** button.
- NOTE:** Some USB devices types include the **New Folder** and **Format** options, other types include only an **Erase** option.



9. In the **Export** window, select the directory where you want to copy the files, or create a **New Folder**.

10. Click the **Export** button to start the **Export**. Allow the operation to finish before continuing.



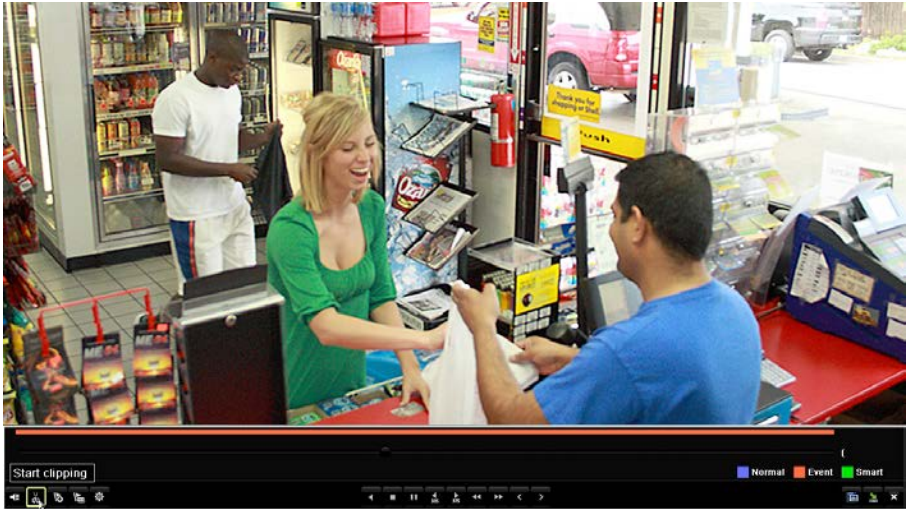
**Note:** The Player utility player.exe will be exported automatically during video file export.

11. Verify that the file you exported can be played from the flash device.

### 5.3.4 Exporting Video Clips during playback

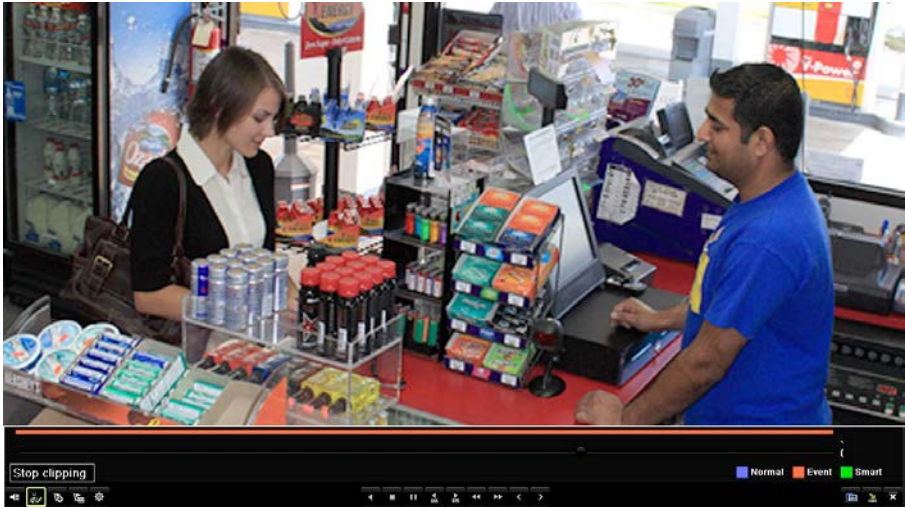
Segments of video recordings can be backed up (exported) during playback. These files exported to a USB storage device such as a USB flash drive or USB disk drive, or USB optical drive.

1. Attach an USB storage device, such as a USB flash drive or USB disk drive or USB optical drive, to the DVR USB port.
2. Playback a video file.



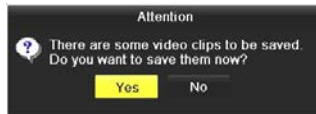
Clip (Start clipping) icon

3. Advance the file playback to the start of the segment you want to export, then click the **Clip** icon (**Start clipping** scissors) at the bottom of the screen to mark the start of the clip you want to save.
4. Advance the file playback to the end of the segment you want to export, then click the **Clip** icon (**Stop clipping** scissors) again to mark the end of the clip you want to save.



Clip (Stop clipping) icon

5. Right click anywhere in the video window, then select **Exit**. The Attention pop-up window shown below will appear.



6. Click **Yes** to save the video clip you marked.
7. In the **Export** window, select the directory where you want to save the file if available, or just click **Export**, then click **Quick Export**. A pop-up window will open showing the file structure of your external storage device. If your USB device is not shown in the **Device Name** field, click the **Refresh** button. **NOTE:** Some USB devices types include the **New Folder** and **Format** options, other types include only an **Erase** option.

## SECTION 5: RECORD, PLAYBACK AND VIDEO BACKUP



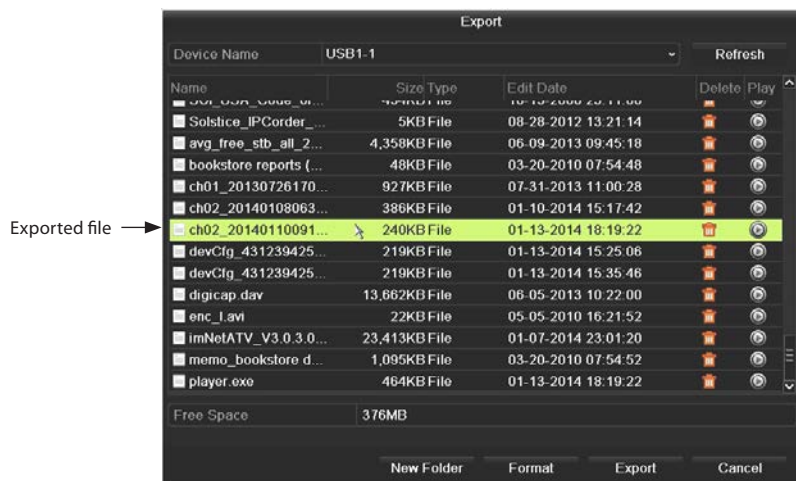
- Click the **Export** button to start the **Export**. The Export window will list the files that were transferred. Allow the operation to finish before continuing.



The Player utility player.exe is exported during video file export.

- Verify that the file you exported can be played from the flash device.





## SECTION 6

## Managing User Accounts

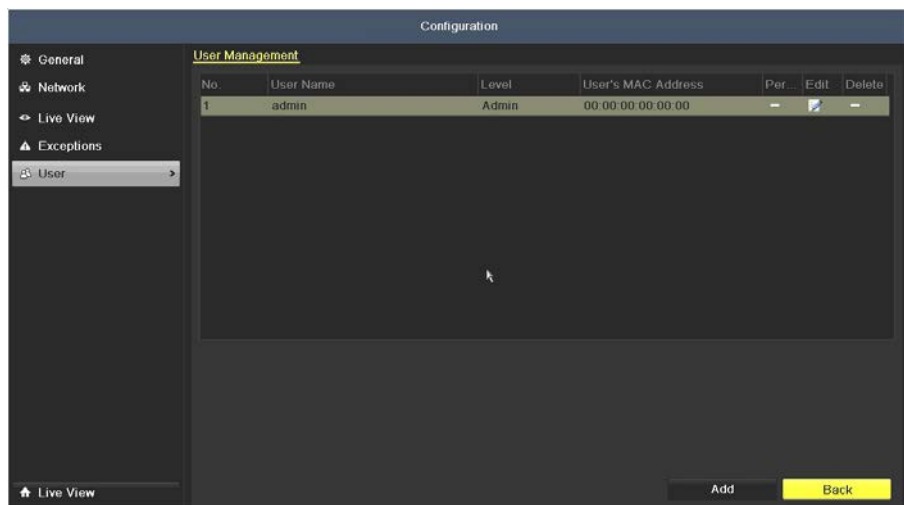
User accounts are created to control access to the system both at the DVR and when logging into the DVR from a remote computer. Each account has a User Name, Password, and a selection of permissions granted to the user.

By default, one user, named “admin”, is provided. The admin user is granted all permissions with the system, and can create, modify, and delete other users. User Name “**admin**”, is assigned the default password “**1111**”. To improve system security, it is strongly recommended that the default password be changed during the initial system setup.

The DVR supports up to 32 user accounts. To add, edit, and delete user accounts, you must log into the DVR with **admin** user credentials.

## Adding a user account

1. Enter the User Management interface. Go to **Menu | Configuration | User**

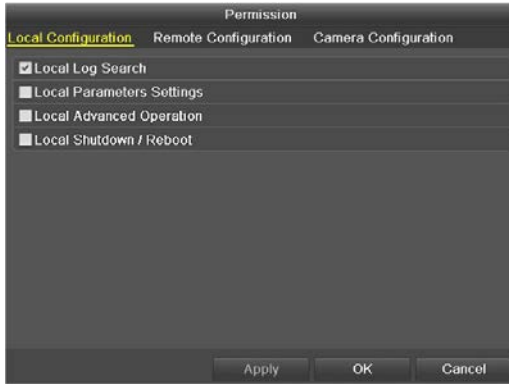


2. Click **Add** to open the Add User menu.

3. Enter the information for new user, including User Name, Password, Level and User's MAC Address.
  - Set the user **Level** to Operator or Guest. Different **Levels** have different operating permission.
    - \* **Operator:** The Operator user level has permission of Two-way Audio in Remote Configuration and all operating permission in Camera Configuration by default.
    - \* **Guest:** The Guest user has no permission of Two-way Audio in Remote Configuration and only has the local/remote playback in the Camera Configuration by default.
  - **User's MAC Address:** The MAC address of the remote PC which logs onto the DVR. If this option is configured and enabled, a remote user with this MAC address only can access the DVR.
4. Click the **OK** to save the settings and go back to the User Management interface. The added new user will be displayed on the list. See the screen shown below.

| No. | User Name | Level    | User's MAC Address | Pe... | Edit | Del... |
|-----|-----------|----------|--------------------|-------|------|--------|
| 1   | admin     | Admin    | 00:00:00:00:00:00  | -     |      |        |
| 2   | 01        | Operator | 00:00:00:00:00:00  |       |      |        |

5. Select the user from the list and then click the button to enter the Permission settings interface. In the example above, user "01" was selected.



6. Set the operating permission of Local Configuration, Remote Configuration and Camera Configuration for the user.

#### Local Configuration options:

- **Local Log Search:** Searching and viewing logs and system information of DVR.
- **Local Parameters Settings:** Configuring parameters, restoring factory default parameters and importing/exporting configuration files.
- **Local Advanced Operation:** Operating HDD management (initializing HDD, setting HDD property), upgrading system firmware, clearing I/O alarm output.
- **Local Shutdown Reboot:** Shutting down or rebooting the DVR.

#### Remote Configuration options

- **Remote Log Search:** Remotely viewing logs that are saved on the DVR.
- **Remote Parameters Settings:** Remotely configuring parameters, restoring factory default parameters and importing/exporting configuration files.
- **Remote Serial Port Control:** Reserved for future expansion.
- **Remote Video Output Control:** Sending remote button control signal.
- **Two-Way Audio:** Realizing two-way radio between the remote client and the DVR.
- **Remote Alarm Control:** Remotely arming (notify alarm and exception message to the remote client) and controlling the alarm output.
- **Remote Advanced Operation:** Remotely operating HDD management (initializing HDD, setting HDD property), upgrading system firmware, clearing I/O alarm output.
- **Remote Shutdown/Reboot:** Remotely shutting down or rebooting the DVR.

#### Camera Configuration

- **Remote Live View:** Remotely viewing live video of the selected camera(s).

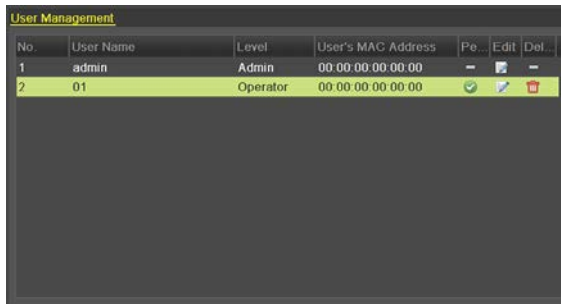
- **Local Manual Operation:** Locally starting/stopping manual recording, picture capturing and alarm output of the selected camera(s).
- **Remote Manual Operation:** Remotely starting/stopping manual recording, picture capturing and alarm output of the selected camera(s).
- **Local Playback:** Locally playing back recorded files of the selected camera(s).
- **Remote Playback:** Remotely playing back recorded files of the selected camera(s).
- **Local PTZ Control:** Locally controlling PTZ movement of the selected camera(s).
- **Remote PTZ Control:** Remotely controlling PTZ movement of the selected camera(s).
- **Local Video Export:** Locally exporting recorded files of the selected camera(s).

7. Click **OK** to save your settings and exit the User menus.

**NOTE** Only the admin user account has permission to restore the DVR to factory default settings.

## 6.1 Deleting a user account

1. Enter the User Management interface. Go to **Menu | Configuration | User**
2. Click the entry for the user to be deleted from the list. When the item is selected, it is highlighted.



| No. | User Name | Level    | User's MAC Address | Pe... | Edit | Del... |
|-----|-----------|----------|--------------------|-------|------|--------|
| 1   | admin     | Admin    | 00:00:00:00:00:00  | -     |      |        |
| 2   | 01        | Operator | 00:00:00:00:00:00  |       |      |        |

3. Click the trash icon to delete the selected user.

## 6.2 Editing a user account

1. Enter the User Management interface. Go to **Menu | Configuration | User**
2. Select the user to be edited from the list (see the **User Management** window above).

- Click the Edit icon to open the Edit User interface. **Note:** The **admin** user can also be edited.

The 'Edit User' dialog box shows the following fields:

|                    |                             |
|--------------------|-----------------------------|
| User Name          | 01                          |
| Password           | *****                       |
| Confirm            | *****                       |
| Level              | Operator                    |
| User's MAC Address | 00 : 00 : 00 : 00 : 00 : 00 |

Buttons at the bottom: Apply, OK, Cancel.

*Operator and Guest Edit User menu*

The 'Edit User' dialog box shows the following fields:

|                    |                             |
|--------------------|-----------------------------|
| User Name          | admin                       |
| Old Password       |                             |
| Change Password    | <input type="checkbox"/>    |
| Password           |                             |
| Confirm            |                             |
| User's MAC Address | 00 : 00 : 00 : 00 : 00 : 00 |

Buttons at the bottom: OK, Cancel.

*admin user Edit User menu*

- Select and edit the menu options as needed:
  - Operator and Guest:** You can edit the user information, including user name, password, permission level and MAC address. To change the password, check the **Change Password** box, then enter the new password in the Password and Confirm fields. Record your new password and save it in a secure location.
  - Admin:** In the Edit User menu for the admin user, you can edit only password and MAC address. To change the password, check the **Change Password** box, enter the old (current) admin password, then enter the new password in the Password and Confirm fields. Record your new password and save it in a secure location.
- Click **OK** to save the settings and exit the menu.

## SECTION 7

# Network Settings

### 7.1 Configuring General Settings

Network settings must be properly configured before you connect the DVR to cameras on network, or access it remotely.

1. Open the Network Settings menu. Go to **Menu | Configuration | Network**

The screenshot shows the 'Configuration' menu with 'General' selected. The 'Network' option is highlighted in the left sidebar. The main area displays various network settings with their current values.

| Configuration        |                                   |
|----------------------|-----------------------------------|
| General              | DDNS NTP Email UPnP More Settings |
| NIC Type             | 10M/100M Self-adaptive            |
| Enable DHCP          | <input type="checkbox"/>          |
| IPv4 Address         | 192 . 168 . 75 . 74               |
| IPv4 Subnet Mask     | 255 . 255 . 255 . 0               |
| IPv4 Default Gateway | 192 . 168 . 75 . 1                |
| IPv6 Address 1       | fe80::8ee7:48ff:fe2f:9fe1/64      |
| IPv6 Address 2       |                                   |
| IPv6 Default Gateway |                                   |
| MAC Address          | 8c-e7-48-2f-9f-e1                 |
| MTU(Bytes)           | 1500                              |
| Preferred DNS Server | 192.168.1.223                     |
| Alternate DNS Server | 12.127.17.11                      |

At the bottom, there are 'Apply' and 'Back' buttons.

2. In the General Settings menu, select or enter the following parameters: NIC Type, IPv4 Address, IPv4 Gateway, MTU and DNS Server. If the DHCP server is available, you can check the Enable DHCP box to automatically obtain an IP address and other network settings from the network DNS server. **NOTE:** The valid MTU range is 500 .. 1500.
3. Click **Apply** to save your settings.

#### 7.1.1 Configuring DDNS

You can configure your DVR to use Dynamic DNS (DDNS). DDNS is especially useful for access to your DVR from outside the local network (i.e., the Internet), and you use DHCP to configure your DVR network settings. To configure the DVR to use DDNS:

1. Open the Network Settings menu. Go to **Menu | Configuration | Network**

## SECTION 7: NETWORK SETTINGS

- Click the **DDNS** tab to open the DDNS Settings menu.

The screenshot shows the 'Configuration' window with the 'DDNS' tab selected. The 'Enable DDNS' checkbox is unchecked. The 'DDNS Type' dropdown is set to 'IPServer'. The 'Server Address' field is empty. The 'Device Domain Name', 'User Name', and 'Password' fields are also empty.

| General    | DDNS               | NTP | Email | UPnP     | More Settings |
|------------|--------------------|-----|-------|----------|---------------|
| General    | Enable DDNS        |     |       |          |               |
| Network    | DDNS Type          |     |       | IPServer |               |
| Live View  | Server Address     |     |       |          |               |
| Exceptions | Device Domain Name |     |       |          |               |
| User       | User Name          |     |       |          |               |
|            | Password           |     |       |          |               |

- Check the **Enable DDNS** box to enable this feature.
- Open the **DDNS Type** drop down list and select one of five options: IP Server, DynDNS, NO-IP.

— **IPServer:** Enter Server Address for IP Server.

The screenshot shows the 'Configuration' window with the 'DDNS' tab selected. The 'Enable DDNS' checkbox is checked. The 'DDNS Type' dropdown is set to 'IPServer'. The 'Server Address' field is empty. The 'Device Domain Name', 'User Name', and 'Password' fields are also empty.

| General    | DDNS               | NTP | Email | UPnP     | More Settings |
|------------|--------------------|-----|-------|----------|---------------|
| General    | Enable DDNS        |     |       |          |               |
| Network    | DDNS Type          |     |       | IPServer |               |
| Live View  | Server Address     |     |       |          |               |
| Exceptions | Device Domain Name |     |       |          |               |
| User       | User Name          |     |       |          |               |
|            | Password           |     |       |          |               |

— **DynDNS:**

The screenshot shows the 'Configuration' window with the 'DDNS' tab selected. The 'Enable DDNS' checkbox is checked. The 'DDNS Type' dropdown is set to 'DynDNS'. The 'Server Address' field is empty. The 'Device Domain Name', 'User Name', and 'Password' fields are also empty.

| General    | DDNS               | NTP | Email | UPnP   | More Settings |
|------------|--------------------|-----|-------|--------|---------------|
| General    | Enable DDNS        |     |       |        |               |
| Network    | DDNS Type          |     |       | DynDNS |               |
| Live View  | Server Address     |     |       |        |               |
| Exceptions | Device Domain Name |     |       |        |               |
| User       | User Name          |     |       |        |               |
|            | Password           |     |       |        |               |

- Enter Server Address for DynDNS (i.e. members.dyndns.org).
- In the DVR Domain Name text field, enter the domain obtained from the DynDNS website.
- Enter the User Name and Password registered in the DynDNS website.



- **NO-IP:** Enter the account information in the corresponding fields. Refer to the DynDNS settings.

- Enter Server Address for NO-IP.
- In the DVR Domain Name text field, enter the domain obtained from the NO-IP website ([www.no-ip.com](http://www.no-ip.com)).
- Enter the User Name and Password registered in the NO-IP website.

### 7.1.2 Configuring NTP Server

A Network Time Protocol (NTP) Server can be configured on your DVR to ensure the accuracy of system date/time.

- Open the Network Settings menu. Go to **Menu | Configuration | Network**
- Click the **NTP** tab to open the NTP settings menu.

- Check the Enable NTP box to enable this feature.
- Select the following NTP settings:
  - **Interval:** Interval in minutes between the two synchronizing actions with an NTP server.  
**NOTE:** The synchronization time interval can be set from 1 to 10080 minutes. The default value is 60 min. If the DVR is connected to a public network, use an NTP server that has a time synchronization function, such as the server at the National Time Center (IP Address: 210.72.145.44). If the DVR is setup in a more customized network, NTP software can be used to establish a NTP server used for time synchronization.
  - **NTP Server:** IP address of NTP server

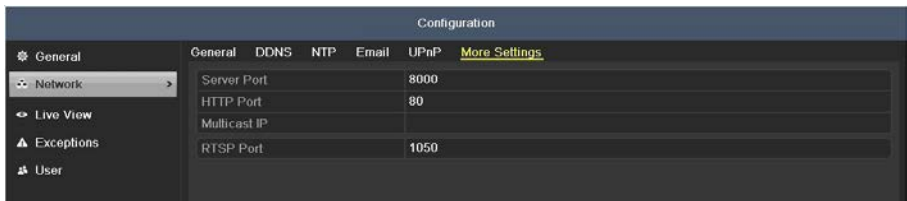
- **NTP Port:** Port of NTP server

- Click **Apply** to save your settings and close the menu.

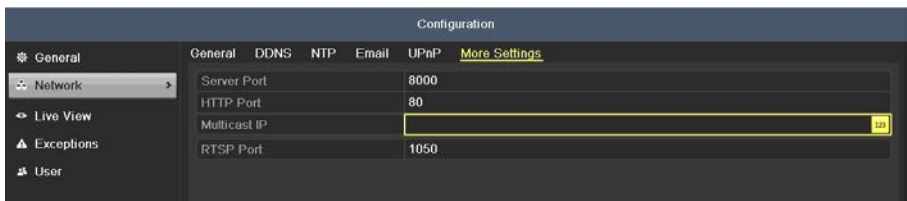
### 7.1.3 Configuring Multicast

Using the multicast function, more than 64 cameras are connectable. A multicast address spans the Class-D IP range of 224.0.0.0 to 239.255.255.255. We recommended that you use the IP address range from 239.252.0.0 to 239.255.255.255.

- Enter the Network Settings interface. Go to **Menu | Configuration | Network**
- Click the **More Settings** tab to open the **More Settings** menu.



- Set the Multicast IP address. When adding a device to the Network Video Surveillance Software, the multicast address must be the same as the DVR's multicast IP.



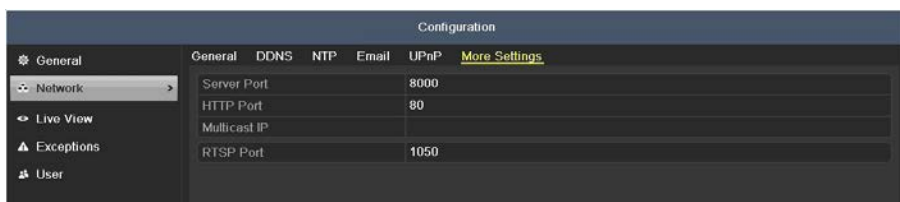
- Click **Apply** to save your settings and close the menu.

**NOTE** The multicast function must be supported by the network switch to which the DVR is connected.

## 7.1.4 Configuring RTSP

The RTSP (Real Time Streaming Protocol) is a network control protocol designed for use in communication systems to control streaming media servers.

1. Open the Network Settings menu. Go to **Menu | Configuration | Network**
2. Click the **More Settings** tab to open the **More Settings** menu.

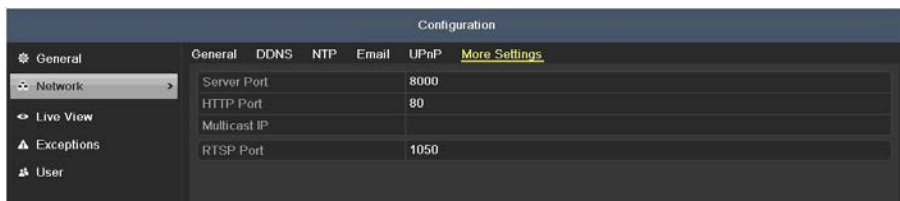


3. In the menu shown above, enter the RTSP port number. The default RTSP port is 554.
4. Click **Apply** to save your settings and close the menu.

## 7.1.5 Configuring Server and HTTP Ports

You can change the server and HTTP ports in the Network Settings menu. The default server port is 8000 and the default HTTP port is 80.

1. Open the Network Settings menu. Go to **Menu | Configuration | Network**
2. Click the **More Settings** tab to open the **More Settings** menu.



3. Enter a new Server Port number and HTTP Port number in the appropriate fields. The default Server Port is 8000 and the HTTP Port is 80.

## SECTION 7: NETWORK SETTINGS

The screenshot shows the 'Configuration' window with the 'Network' tab selected. The left sidebar contains 'General', 'Network', 'Live View', 'Exceptions', and 'User'. The 'Network' tab displays the following settings:

| General      | DDNS | NTP | Email | UPnP | More Settings |
|--------------|------|-----|-------|------|---------------|
| Server Port  |      |     |       | 8000 |               |
| HTTP Port    |      |     |       | 80   |               |
| Multicast IP |      |     |       |      |               |
| RTSP Port    |      |     |       | 1050 |               |

### NOTE

The Server Port number must be in the range 2000 .. 65535. it is used for remote client software access.  
The HTTP port is used for remote IE access.

- Click **Apply** to save your settings and close the menu.

### 7.1.6 Configuring Email

The system can be configured to send an Email notification to all designated users if an alarm event is detected, etc., an alarm or motion event is detected or the administrator password is changed.

Before configuring the Email settings, the DVR must be connected to a local area network (LAN) that maintains an SMTP mail server. The network must also be connected to either an intranet or the Internet depending on the location of the e-mail accounts to which you want to send notification.

- Open the Network Settings menu. Go to **Menu | Configuration | Network**
- Set the IPv4 Address, IPv4 Subnet Mask, IPv4 Gateway and the Preferred DNS Server in the Network Settings menu.

The screenshot shows the 'Configuration' window with the 'Network' tab selected. The left sidebar contains 'General', 'Network', 'Live View', 'Exceptions', and 'User'. The 'Network' tab displays the following settings:

| General              | DDNS | NTP | Email | UPnP                         | More Settings |
|----------------------|------|-----|-------|------------------------------|---------------|
| NIC Type             |      |     |       | 10M/100M Self-adaptive       |               |
| Enable DHCP          |      |     |       | <input type="checkbox"/>     |               |
| IPv4 Address         |      |     |       | 192 . 168 . 75 . 74          |               |
| IPv4 Subnet Mask     |      |     |       | 255 . 255 . 255 . 0          |               |
| IPv4 Default Gateway |      |     |       | 192 . 168 . 75 . 1           |               |
| IPv6 Address 1       |      |     |       | fe80::8ee7:48ff:fe2f:9fe1/64 |               |
| IPv6 Address 2       |      |     |       |                              |               |
| IPv6 Default Gateway |      |     |       |                              |               |
| MAC Address          |      |     |       | 8c:e7:48:2f:9f:e1            |               |
| MTU(Bytes)           |      |     |       | 1500                         |               |
| Preferred DNS Server |      |     |       | 192.168.1.223                |               |
| Alternate DNS Server |      |     |       | 12.127.17.71                 |               |

At the bottom of the window, there are buttons for 'Live View', 'Apply', and 'Back'.

3. Click **Apply** to save your settings and close the menu.
4. Click the **Email** tab to open the email settings men.

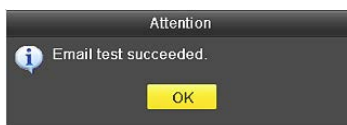
The screenshot shows the 'Configuration' window with the 'Email' tab selected. The left sidebar contains a tree view with 'General', 'Network', 'Live View', 'Exceptions', and 'User'. The main panel displays the 'Email' configuration form. The form includes the following fields and controls:

- Enable Server Authentication:** A checkbox that is currently checked.
- User Name:** A text input field.
- Password:** A text input field.
- SMTP Server:** A text input field.
- SMTP Port:** A text input field containing the value '25'.
- Enable SSL:** A checkbox that is currently unchecked.
- Sender:** A text input field.
- Sender's Address:** A text input field.
- Select Receivers:** A dropdown menu showing 'Receiver 1'.
- Receiver:** A text input field.
- Receiver's Address:** A text input field.
- Enable Attached Picture:** A checkbox that is currently unchecked.
- Interval:** A dropdown menu showing '2s'.

At the bottom right of the form, there are three buttons: 'Test', 'Apply', and 'Back'.

5. Configure the following Email settings:
  - **Enable Server Authentication** (optional): Check the checkbox to enable the server authentication feature.
  - **User Name:** The user account of sender's Email for SMTP server authentication.
  - **Password:** The password of sender's Email for SMTP server authentication.
  - **SMTP Server:** The SMTP Server IP address or host name (e.g., smtp.263xmail.com).
  - **SMTP Port No.:** The SMTP port. The default TCP/IP port used for SMTP is 25.
  - **Enable SSL** (optional): Click the checkbox to enable SSL if required by the SMTP server.
  - **Sender:** The name of sender.
  - **Sender's Address:** The Email address of sender.
  - **Select Receivers:** Select the receiver. Up to 3 receivers can be configured.
  - **Receiver:** The name of user to be notified.
  - **Receiver's Address:** The Email address of user to be notified.
  - **Enable Attached Pictures:** Check the Enable Attached Picture box if you want to send email with attached alarm images. The interval is the time of two adjacent alarm images. You can also set SMTP port and enable SSL here.
  - **Interval:** The interval refers to the time between two actions of sending attached pictures.
  - **E-mail Test:** Sends a test message to verify that the SMTP server can be reached.
6. Click **Apply** to save your settings.

- Click the **Test** button to test your Email settings. The corresponding **Attention** message box will pop up.

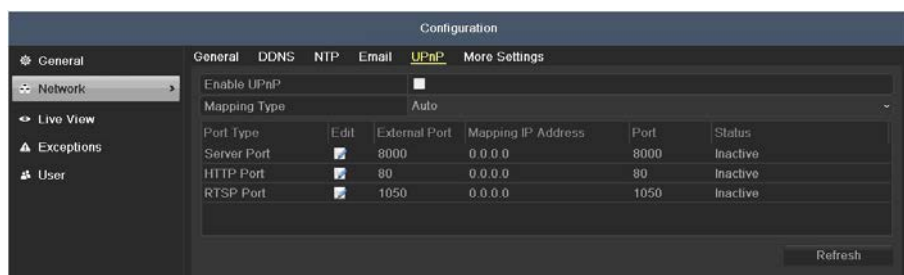


## 7.1.7 Configuring UPnP™

The Universal Plug and Play (UPnP™) feature allows the device to seamlessly discover other network devices and establish functional network services for data sharing, communications, etc. You can use the UPnP function to enable the fast connection of the device to the WAN via a router without port mapping.

If you want to enable the UPnP function of the device, you must enable the UPnP function of the router to which your device is connected. When the network working mode of the device is set as multi-address, the Default Route of the device should be in the same network segment as that of the LAN IP address of the router.

- Open the Network Settings menu. Go to **Menu | Configuration | Network**
- Click the **UPnP** tab to open the UPnP™ menu.



- Check the **Enable UPnP** box to enable UPnP.
- In the UPnP menu, you can click the icon in the **Edit** column to change the External Port number associated with the Port Type. When finished, click **Refresh**, and then click **Apply** to save your settings.

## SECTION 8

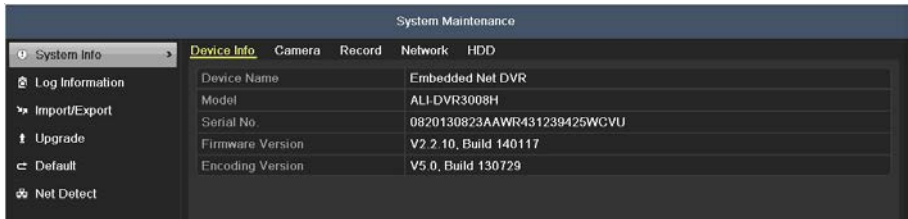
# System Maintenance

The Maintenance menus provide several displays that report system device information, log information, and network traffic. Features also include the export and import of the system configuration file, firmware upgrade, and factory reset.

### 8.1 System Information

The System Information displays include status reports of the DVR, cameras, record settings, the network and the HDDs. The configuration settings shown on these displays can only be changed in other areas of the menu system.

1. To open the System Information displays, go to **Menu | Maintenance | System Information**:



The Device Info tab includes information about the DVR. Other tabs show the configuration settings for **Cameras**, **Recordings**, **Network**, and **HDD** settings. To view information about other parts of the system, click the appropriate tab.

### 8.2 Log Information

System log information is continuously generated and saved in log records. System logs include the following types of entries:

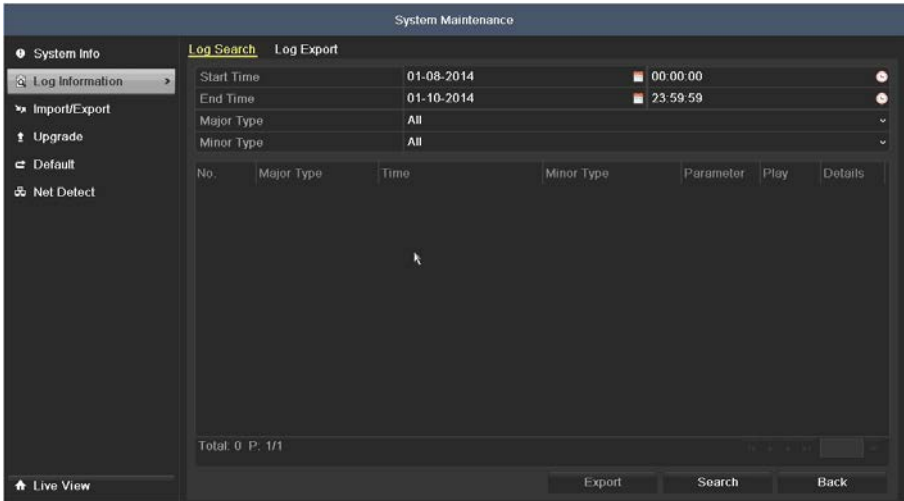
- Alarms events - Start/stop motion detection, start/stop tamper detection etc.
- Exception conditions - Video loss, illegal login, HDD full/error, IP camera disconnected, network disconnected, etc.
- Information events - Start/stop recording, local/network HDD information, HDD S.M.A.R.T., etc.
- Operation events - power on, login, local operation logout, etc.

System logs can be searched and sorted for specific entries, and archived for use later. You can also search for video clips through system logs.

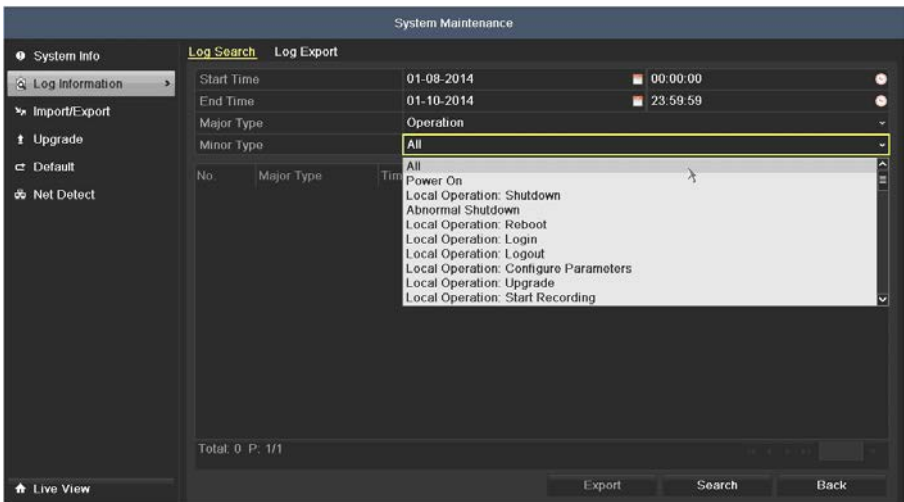
#### 8.2.1 Log Search

1. Open the Log Information screen. Go to **Menu | Maintenance | Log Information**

## SECTION 8: SYSTEM MAINTENANCE

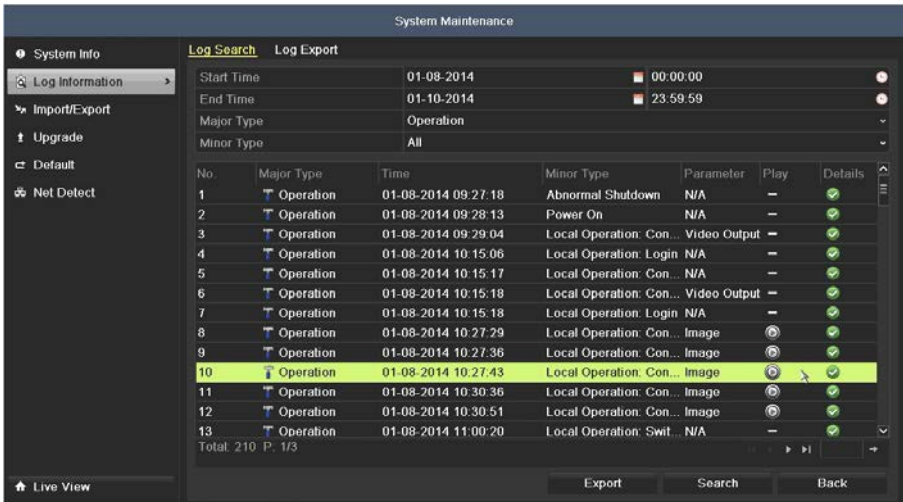


2. Select a **Start Time**, **End Time**, **Major Type** and **Minor Type**. In the example below, the search criterion specified are "Operation" (Major Type) entries with "All" (Minor Type).

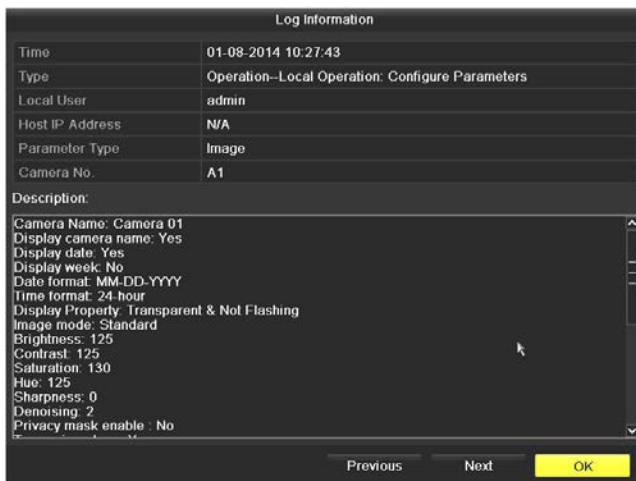


3. Click **Search**. If the search didn't find a file matching your search criteria, the message **No matched log file.** will appear.





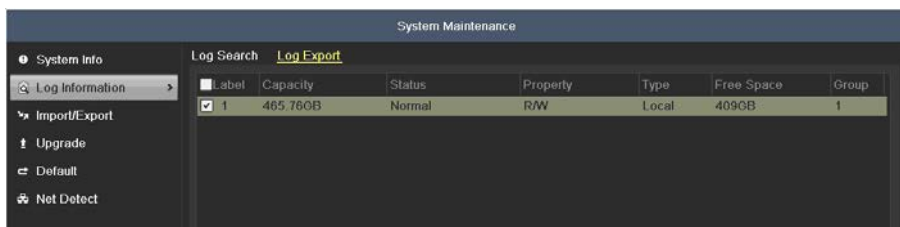
4. You can Export the result of the log search (click Export), choose a log entry with record file and click the playback button to play the file, or click the icon in the Details column to see more information about the entry. The Log Information Details screen is shown below.



## 8.2.2 Log Export

Log information can be exported to a backup device such as a USB storage device. The exported log file is in .txt format and readable with an ASCII text viewer such as Microsoft® Windows® Notepad or Wordpad. The filename, prefixed with the date and timestamp, in the format *YYYYMMDDHHMMSSlogBack.txt*. To export the log file:

1. Attach an USB storage device, such as a USB flash drive or USB disk drive, to the DVR USB port.
2. Open the Log Information menu. Go to **Menu | Maintenance | Log Information**
3. Click the **Log Export** tab to display the DVR storage devices.
4. Check the select box for the storage devices that contain log information.



5. Click the **Export** button at the bottom of the screen.



6. On the **Device Name** line, open the drop down list and select the destination for the file export.
7. Select the directory where you want to copy the files, or create a **New Folder**.
8. Click the **Export** button to start the **Export**. Allow the operation to finish before continuing.

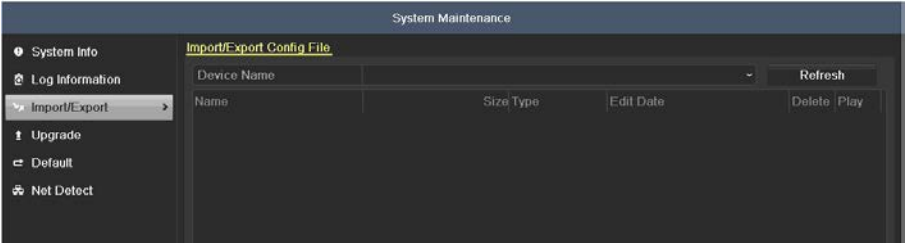


- 9. Check the Export result on a computer by opening a file that was saved.

8.3 Import / Export system configuration

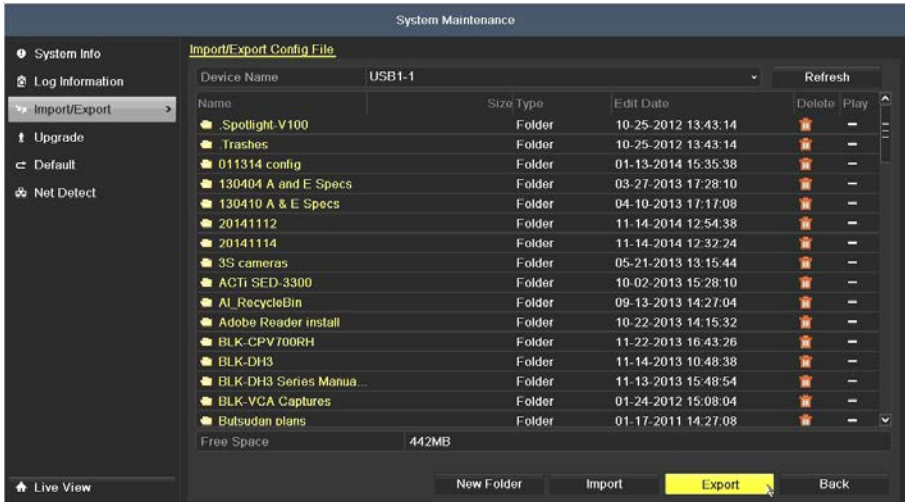
You can export the DVR configuration, then import the file later to restore the earlier configuration.

- 1. Attach an USB storage device, such as a USB flash drive or USB disk drive, to the DVR USB port.
- 2. Open the **Import/Export** menu. Go to **Menu | Maintenance | Import/Export**



Export configuration file

- 3. On the **Device Name** line, open the drop down list and select the destination for the exported configuration file.



- Click the **Export** button to start the export. Allow the operation to finish before continuing. When the export operation is successful, an "Attention" "Export succeeded" pop-up window will open.



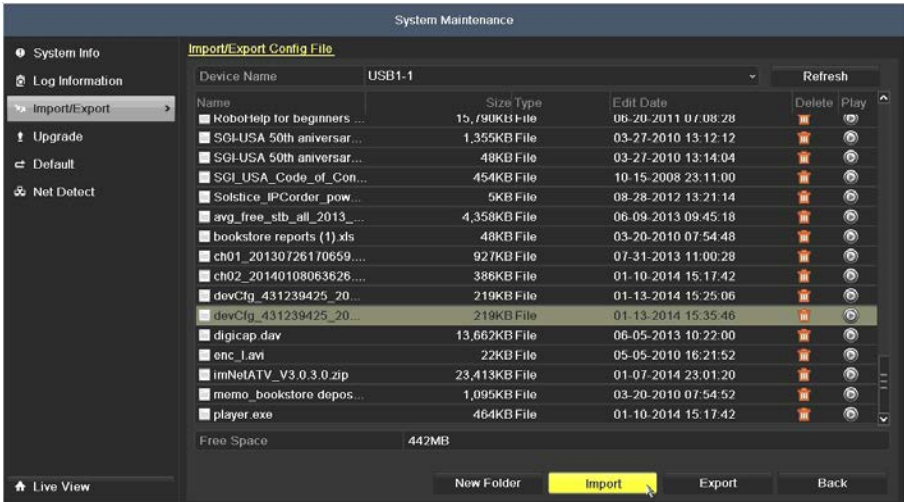
- Click **OK** to close the pop-up window.

**NOTE:** The configuration backup file is a binary file with a timestamp in the format `devCfg_<code>_YYYYMMDDHHMMSS.bin`

- Record the name of the exported file for future reference.

## Import configuration file

- On the **Device Name** line, open the drop down list and select the destination of the exported configuration file. The configuration backup file is a binary file with a timestamp in the format `devCfg_<code>_YYYYMMDDHHMMSS.bin`

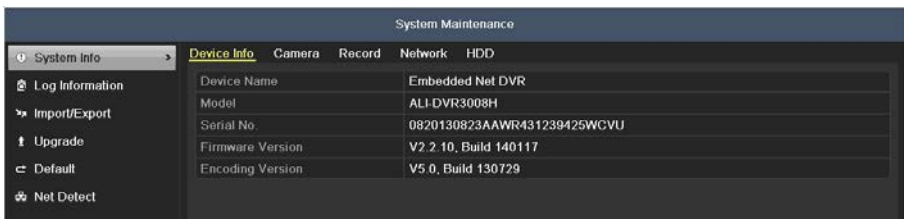


- In the file list of the USB device, highlight the DVR configuration file you want to load, and then click **Import**.
- Allow the DVR to fully reboot, then use it normally.

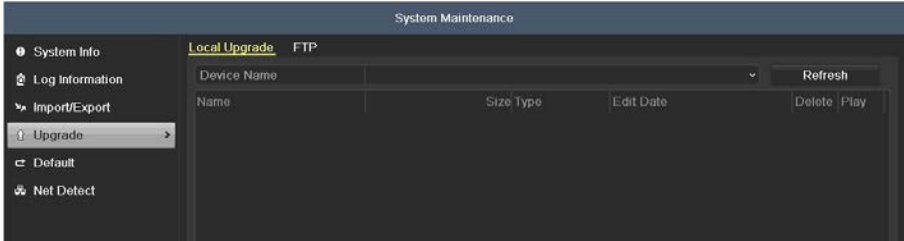
## 8.4 Upgrade Firmware

You can upgrade the firmware through a local device or remote FTP server. You should check the current Firmware version before upgrading your DVR firmware. Firmware upgrade should only be performed when recommended by your DVR support organization.

- To check the current firmware version, open the System information display. Go to **Menu | Maintenance | System Information**



- If the firmware needs to be upgraded, click the **Upgrade** tab on the left.



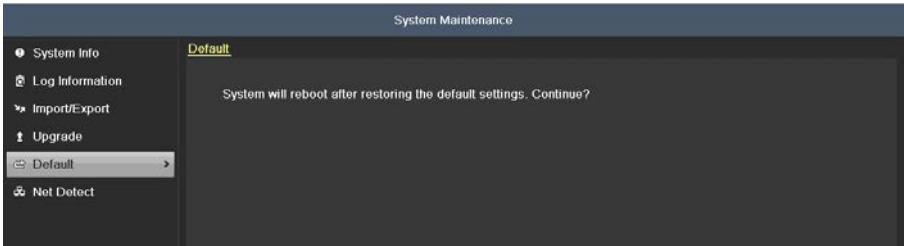
3. If installing firmware from a local device such as a USB flash drive or disk:
  - a. Connect the local device to the DVR, if necessary.
  - b. Open the **Device Name** drop down list and select the device that contains the firmware.
  - c. Click the firmware file you want to load.
  - d. Click the **Upgrade** button, then follow the on-screen instructions for completing the upgrade.
4. If installing firmware from a FTP server:
  - a. Click the FTP upgrade tab at the top of the menu.
  - b. Click the firmware file you want to load.
  - c. Click the **Upgrade** button, then follow the on-screen instructions for completing the upgrade.
5. Open the System Information screen and verify that the new firmware version is installed.
6. Perform a DVR **Shutdown**, then power it off.
7. Power the DVR on.

## 8.5 Default

The default option will reset the DVR to its factory settings. Except the network parameters (including IP address, subnet mask, gateway, MTU, NIC working mode, default route and server port), all other configuration parameters are restored to factory default settings.

To restore the factory default configuration:

1. Open the Log Information menu. Go to **Menu | Maintenance | Default**



2. Click **OK**, then allow the DVR to reboot before continuing.

## 8.6 Net Detect

### 8.6.1 Checking Network Traffic

You can see real-time information of your DVR network traffic, such as linking status, MTU, sending/receiving rate, etc. The traffic data is refreshed every 1 second.

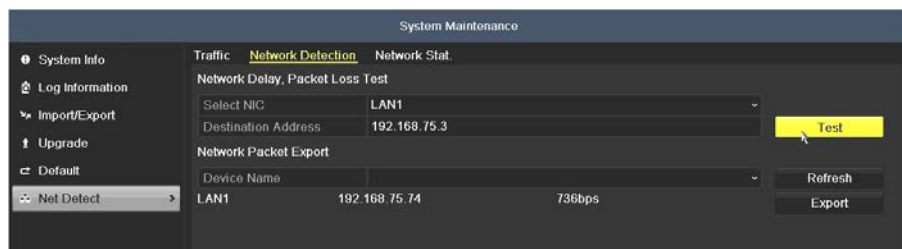
Open the Network Traffic menu. Go to **Menu | Maintenance | Net Detect**



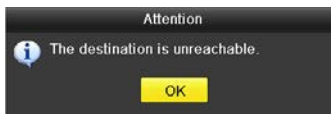
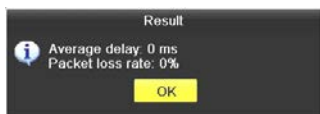
You can view the sending rate and receiving rate information on the interface. Traffic data is refreshed every 1 second.

## 8.6.2 Testing Network Delay and Packet Loss

1. Open the Network Traffic menu. Go to **Menu | Maintenance | Net Detect**
2. Click the **Network Detection** tab to open the menu.
3. Click on the **Destination Address** field, then use the virtual keyboard to enter a address to connect (*ping*) to. In the field shown below, 1492.168.75.3 was entered in the destination field.



4. Click the **Test** button to begin the test for network delay and packet loss. The testing result appear in the window. If the testing is failed, the error message box will open.



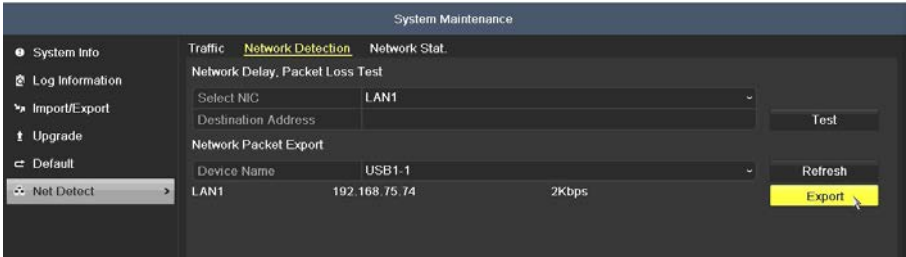
## 8.6.3 Exporting Network Packet

By connecting the DVR to network, the captured network data packet can be exported to a USB device such as a flash drive, HDD, DVD-R/W and other local USB backup devices.

1. Open the Network Traffic menu. Go to **Menu | Maintenance | Net Detect**
5. Click the **Network Detection** tab to open the Network Detection menu.
6. Select the backup device from the **Device Name** drop down list. In the example below, the packet is being exported to USB1-1.

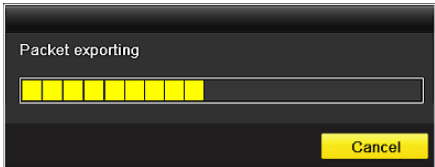
**Note:** Click the **Refresh** button if the connected local backup device cannot be displayed. When it fails to detect the backup device, verify that it is compatible with the DVR. Format the backup device if the format is incorrect.





**Note:** Click the **Refresh** button if the connected local backup device cannot be displayed. When it fails to detect the backup device, verify that it is compatible with the DVR. Format the backup device if the format is incorrect.

7. Click the **Export** button to start the export.
8. When the export is complete, click **OK**. Up to 1 M data can be exported during one operation.

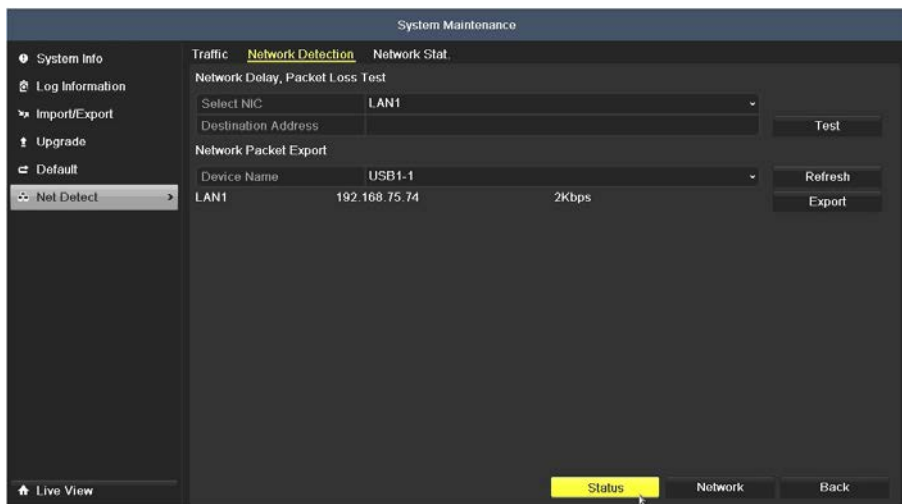


### 8.6.4 Checking the network status

You can also check the network status and quickly set the network parameters.

1. Open the Network Traffic menu. Go to **Menu | Maintenance | Net Detect**
2. Click the **Network Detection** tab to open the Network Detection menu.

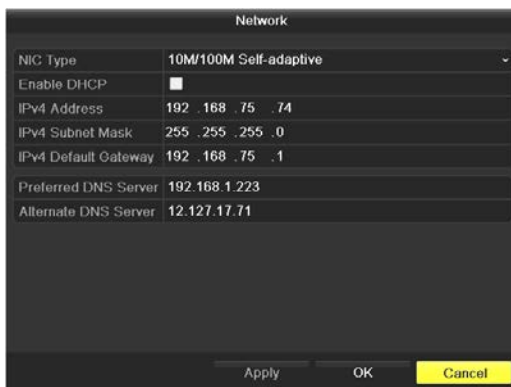
## SECTION 8: SYSTEM MAINTENANCE



- Click the **Status** button at the bottom of the screen to report the status.



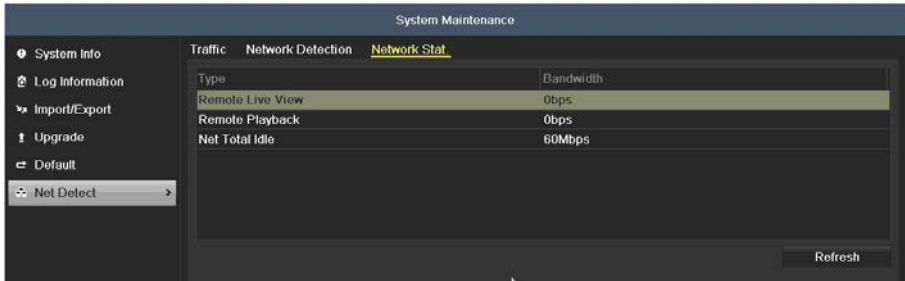
- If the message box shows an error, click the **Network** button to open the **Network** parameters menu. After changing parameters, click **Apply**, and then click **OK** to save your settings.



## 8.6.5 Checking Network Statistics

Use the following procedure to view real time network status of your DVR.

1. Open the Network Traffic menu. Go to **Menu | Maintenance | Net Detect**
2. Click the **Network Stat.** tab to open the Network status report.



Use this display to check the bandwidth of the IP Camera, bandwidth of Remote Live View, bandwidth of Remote Playback, bandwidth of Net Receive Idle and bandwidth of Net Send Idle.

3. Click the **Refresh** button to show the current status.

## SECTION 9

# Remote Access

If your DVR is connected to a local network (LAN), you can access it from another computer on the LAN through Microsoft® Internet Explorer® 11. Internet Explorer 9 or 10 can also be used, but must be run in “Compatibility” mode for the IP address you are logging into.

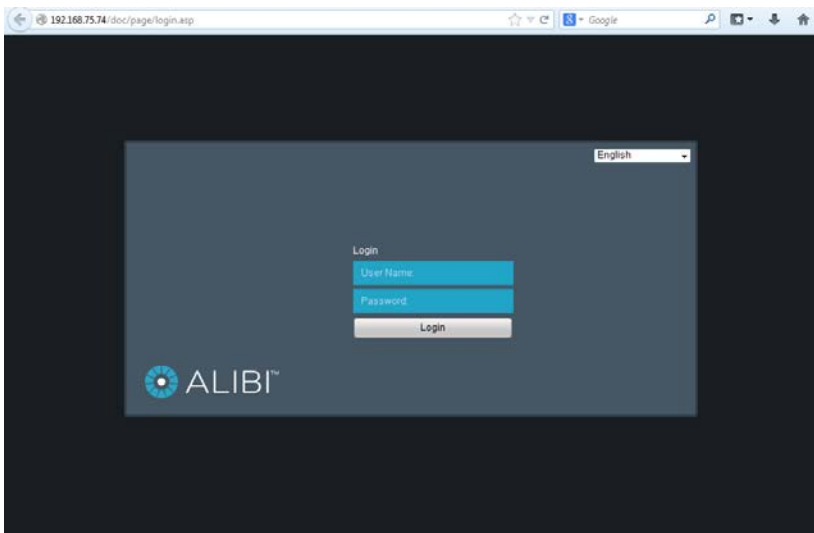
When connecting to the DVR, you must enter a User Name and Password. Note that some user permissions disallow remote access and/or features of this access method.

When logging into the DVR from a remote computer for the first time, you must install a plug-in program named WebComponents. The procedure for installing the program using Internet Explorer 11 is shown below. Subsequent logins do not require you to reinstall WebComponents.

### 9.1 Remote login

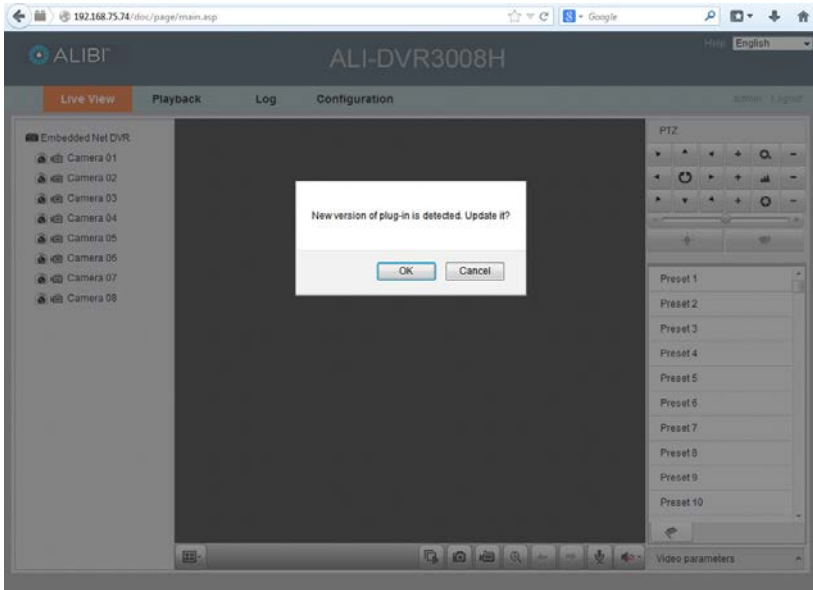
To access the DVR from a computer on the LAN:

1. Open an Internet browser on the computer and enter the IP address of the DVR in the URL field. In the example below, the IP address of the DVR is 192.168.75.74.

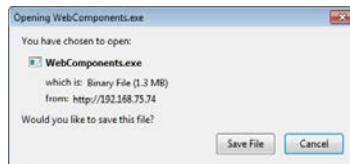


2. In the login window, enter your **User Name** and **Password** in the appropriate fields, then click **Login**.

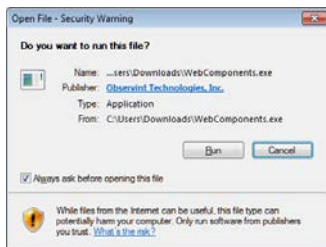
3. If this login is the first login to the DVR from your computer and browser, continue with the following sub-steps:
  - a. After a successful login to the DVR, a message will appear in the middle of the Live View window requiring you to load a plug-in. Click on the message to continue.



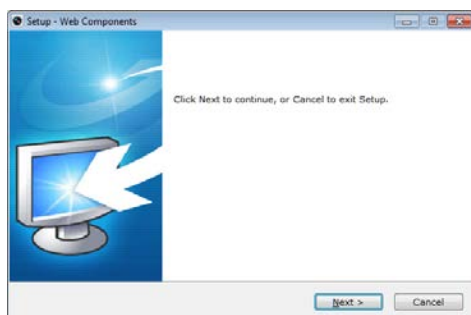
- b. When the **Opening WebComponents.exe** window opens, close the internet browser window, then click **Save File** in the window.



- c. Open (double click) the file in the download folder, then click **Run** in the Security Warning window.



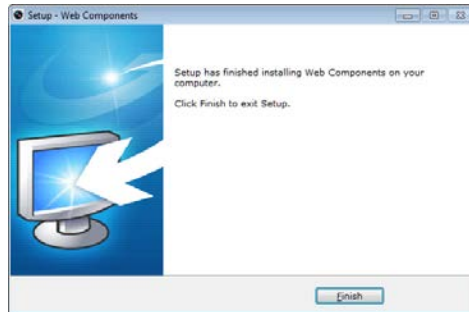
- d. In the **Setup** window, click Next to install the plug-in.



- e. The following window may appear. If so, close the application (in this example, Firefox), then click **Next**.



- f. When the software setup is complete, click **Finish**.

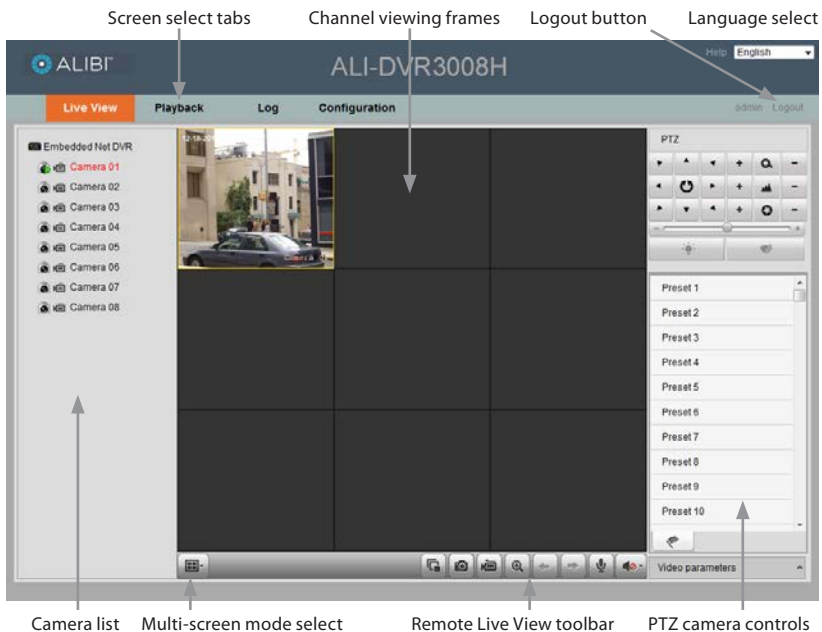


g. If necessary, open your Internet browser again, then login to the DVR again as you did in Step 1 and 2 above.

## 9.2 Remote Live View screen

The Live View screen initially appears in a 3 x 3 channel viewing frame configuration with no live view images shown. You can:

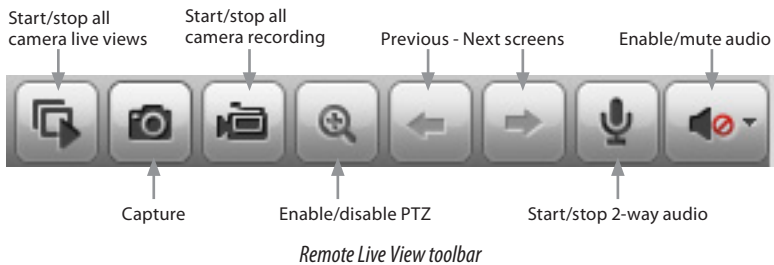
- Change the viewing screen layout by clicking the multi-screen select button and selecting the icon for a 1 screen or a 2 x 2 layout.
- View live video from a camera by clicking on a viewing frame, then double clicking on a camera to view.
- Control a PTZ camera using the controls in the left frame.



## SECTION 9: REMOTE ACCESS

To view video from a camera in the Live View screen:

- Click a viewing frame to select it. When selected, the frame is surrounded by a bright box.
  - Click the camera channel you want to see.
  - To expand the image to full frame, double click the image in the viewing frame. To return to normal viewing mode, press **ESC** (keyboard escape key).
- You can control many Live View functions quickly with the Live View toolbar. The function of the toolbar icons are similar to those on the DVR channel viewing frame.

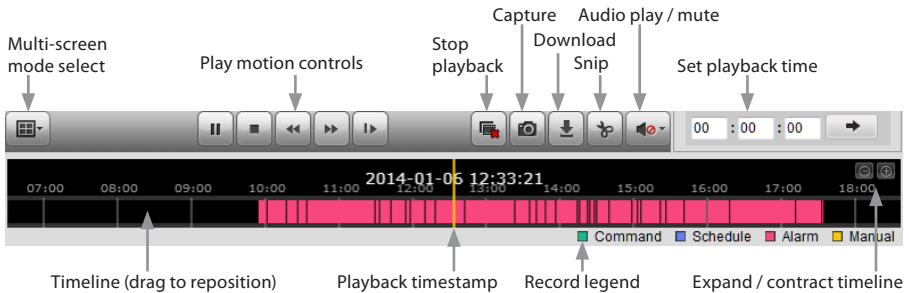


### 9.3 Remote Playback screen

Open the Playback screen by clicking **Playback** in the screen header. The Playback screen allows you to review video recorded from one camera or several cameras concurrently. Also, video can be downloaded to your local computer.







To playback recorded video:

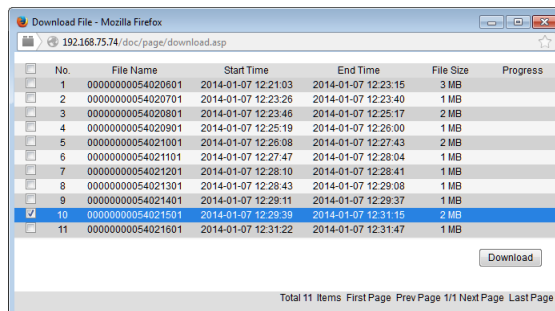
1. Click the multi-screen mode button to select the number of viewing frames you need to display. You can select either a 1, 2 x 2, or 3 x 3 frame pattern.
2. In the left frame, click the camera channel you want to play recorded video from. In the example above, *Camera 02* was selected.
3. In the right frame, click the date when the video was recorded, then click the **Search** button. Note that in the example above, December 18, 2013 was selected.
4. At the bottom of the screen, drag the timeline left or right to find when video was recorded for the camera selected. The condition that caused video to be recorded is indicated by a colored band on the timeline. The color legend is shown below.
5. Click the **Play** button to begin playing video.

To Download recorded video:

## NOTE

*The location where recorded video downloads and captures during playback are saved is shown on the **Configuration | Location Configuration** screen.*

1. Click the **Download** icon.



## SECTION 9: REMOTE ACCESS

2. Check the box of the video segment you want to download.
3. Click the **Download** button.

## 9.4 Remote Log screen

Open the Log screen by clicking **Log** in the screen header. The DVR log report is created by specifying a search criteria using the menu in the right frame (or using the default options), then clicking the **Search** button. The search criteria menu includes filters to search for Major and Minor type events, and specify the start and end time of the report.

| No. | Time                | Major Type  | Minor Type             | Channel No. | Local/Remote User | Remote Host IP |
|-----|---------------------|-------------|------------------------|-------------|-------------------|----------------|
| 1   | 2014-01-08 00:25:00 | Information | S.M.A.R.T. Information | 1           | 0.0.0.0           | 0.0.0.0        |
| 2   | 2014-01-08 01:25:02 | Information | S.M.A.R.T. Information | 1           | 0.0.0.0           | 0.0.0.0        |
| 3   | 2014-01-08 02:05:36 | Alarm       | Start Motion Detection | A2          | 0.0.0.0           | 0.0.0.0        |
| 4   | 2014-01-08 02:05:36 | Information | Start Recording        | A2          | 0.0.0.0           | 0.0.0.0        |
| 5   | 2014-01-08 02:05:42 | Alarm       | Stop Motion Detection  | A2          | 0.0.0.0           | 0.0.0.0        |
| 6   | 2014-01-08 02:05:42 | Information | Stop Recording         | A2          | 0.0.0.0           | 0.0.0.0        |
| 7   | 2014-01-08 02:25:05 | Information | S.M.A.R.T. Information | 1           | 0.0.0.0           | 0.0.0.0        |
| 8   | 2014-01-08 03:23:39 | Alarm       | Start Motion Detection | A2          | 0.0.0.0           | 0.0.0.0        |
| 9   | 2014-01-08 03:23:39 | Information | Start Recording        | A2          | 0.0.0.0           | 0.0.0.0        |
| 10  | 2014-01-08 03:23:46 | Alarm       | Stop Motion Detection  | A2          | 0.0.0.0           | 0.0.0.0        |
| 11  | 2014-01-08 03:23:52 | Information | Stop Recording         | A2          | 0.0.0.0           | 0.0.0.0        |
| 12  | 2014-01-08 03:25:08 | Information | S.M.A.R.T. Information | 1           | 0.0.0.0           | 0.0.0.0        |
| 13  | 2014-01-08 04:25:10 | Information | S.M.A.R.T. Information | 1           | 0.0.0.0           | 0.0.0.0        |
| 14  | 2014-01-08 05:25:13 | Information | S.M.A.R.T. Information | 1           | 0.0.0.0           | 0.0.0.0        |
| 15  | 2014-01-08 06:10:32 | Alarm       | Start Motion Detection | A2          | 0.0.0.0           | 0.0.0.0        |
| 16  | 2014-01-08 06:10:32 | Information | Start Recording        | A2          | 0.0.0.0           | 0.0.0.0        |
| 17  | 2014-01-08 06:10:35 | Alarm       | Stop Motion Detection  | A4          | 0.0.0.0           | 0.0.0.0        |
| 18  | 2014-01-08 06:10:35 | Information | Start Recording        | A4          | 0.0.0.0           | 0.0.0.0        |
| 19  | 2014-01-08 06:10:42 | Alarm       | Stop Motion Detection  | A2          | 0.0.0.0           | 0.0.0.0        |
| 20  | 2014-01-08 06:10:42 | Alarm       | Stop Motion Detection  | A4          | 0.0.0.0           | 0.0.0.0        |
| 21  | 2014-01-08 06:10:48 | Information | Stop Recording         | A2          | 0.0.0.0           | 0.0.0.0        |
| 22  | 2014-01-08 06:10:48 | Information | Stop Recording         | A4          | 0.0.0.0           | 0.0.0.0        |
| 23  | 2014-01-08 06:25:15 | Information | S.M.A.R.T. Information | 1           | 0.0.0.0           | 0.0.0.0        |
| 24  | 2014-01-08 06:29:44 | Alarm       | Start Motion Detection | A2          | 0.0.0.0           | 0.0.0.0        |
| 25  | 2014-01-08 06:29:44 | Information | Start Recording        | A2          | 0.0.0.0           | 0.0.0.0        |
| 26  | 2014-01-08 06:29:53 | Alarm       | Stop Motion Detection  | A2          | 0.0.0.0           | 0.0.0.0        |
| 27  | 2014-01-08 06:29:54 | Alarm       | Start Motion Detection | A2          | 0.0.0.0           | 0.0.0.0        |
| 28  | 2014-01-08 06:30:00 | Alarm       | Stop Motion Detection  | A2          | 0.0.0.0           | 0.0.0.0        |
| 29  | 2014-01-08 06:30:06 | Information | Stop Recording         | A2          | 0.0.0.0           | 0.0.0.0        |
| 30  | 2014-01-08 06:32:19 | Alarm       | Start Motion Detection | A2          | 0.0.0.0           | 0.0.0.0        |
| 31  | 2014-01-08 06:32:19 | Information | Start Recording        | A2          | 0.0.0.0           | 0.0.0.0        |
| 32  | 2014-01-08 06:32:29 | Alarm       | Stop Motion Detection  | A2          | 0.0.0.0           | 0.0.0.0        |
| 33  | 2014-01-08 06:32:35 | Information | Stop Recording         | A2          | 0.0.0.0           | 0.0.0.0        |
| 34  | 2014-01-08 06:36:01 | Alarm       | Start Motion Detection | A2          | 0.0.0.0           | 0.0.0.0        |

Total 2000 Items [First Page](#) [Prev Page](#) [1/20 Next Page](#) [Last Page](#)

You can sort the log reports by the **Search Log** options shown in the right frame.

Log reports can be saved in either text or Excel formats by clicking the **Save Log** icon.

## 9.5 Remote Configuration screen

Open the Configuration screen by clicking **Configuration** in the screen header. The Configuration menu enables you to configure where you save snapshots, clips, and downloaded files on your local computer, view the DVR configuration and make configuration changes. The User Name you use to login to the DVR must have administrative privileges to change the DVR configuration.

ALIBI ALI-DVR3008H

Help English

Live View Playback Log **Configuration** admin Logout

**Configuration**

- Local Configuration
- Remote Configuration
- Device Parameters
  - Device Information
  - Time Settings
- Camera Settings
- Network Settings
- Serial Port Settings
- Exception
- User Management
- HDD Management
- Maintenance
- Camera Management

**Local Configuration**

Protocol: TCP

Stream Type: Main Stream

Image Size: Auto-fill

Record File Size: 512M

Live View Performance: Balanced

Save record files to: C:\Users\Web\RecordFiles

Save snapshots in live view to: C:\Users\Web\CaptureFiles

Save snapshots when playback to: C:\Users\Web\PlaybackPics

Save clips to: C:\Users\Web\PlaybackFiles

Save downloaded files to: C:\Users\Web\DownloadFiles

*Remote Configuration - Local Configuration screen*

ALIBI ALI-DVR3008H

Help English

Live View Playback Log **Configuration** admin Logout

**Configuration**

- Local Configuration
- Remote Configuration
- Device Parameters
  - Device Information
  - Time Settings
- Camera Settings
  - Display Settings
  - Video Settings
  - Schedule Settings
  - Motion Detection
  - Video Loss
  - Privacy Mask
  - Tamper-proof
  - Text Overlay
  - Holiday Settings
- Network Settings
- Serial Port Settings
- Exception
- User Management
- HDD Management
- Maintenance**
- Camera Management

**Maintenance**

**Reboot**

Reboot the device.

**Default**

Reset all the parameters, except the IP parameters and user information, to the default settings.

Restore all parameters to default settings.

**Import Config. File**

Config File:

Status:

**Export Config. File**

**Remote Upgrade**

Firmware:

Status:

**Note:** The upgrading process will be 1 to 10 minutes, please don't disconnect power to the device during the process. The device reboots automatically after upgrading.

*Typical remote Configuration screen*

Options in the configuration menu function identically as those in the embedded DVR **Menu** system. For more information on how to use these options, refer to the DVR **Menu** descriptions in previous sections of this manual. After making configuration changes click **Save** to apply your changes.

## SECTION 10

# Cleaning

Clean the camera lens and IR lamp shield with a mild glass cleaning solution and a lint free cloth.

- Remove all foreign particles, such as plastic or rubber materials, attached to the camera housing. These may cause damage to the surface over time.
- Dust can be removed from equipment by wiping it with a soft damp cloth. To remove stains, gently rub the surface with a soft cloth moistened with a mild detergent solution, then rinse and dry it with a soft cloth.



*Do not use benzene, thinner or other chemical products on the camera assembly; these may dissolve the paint and promote damage of the surfaces. Before using any chemical product, read the instructions carefully.*

## SECTION 11

# Specifications

| Section            | Item                  | ALI-DVR3004H  | ALI-DVR3008H                     | ALI-DVR3016H  |
|--------------------|-----------------------|---|----------------------------------|---|
| Video/Audio Input  | Video Compression     | H.264   |                                  |   |
|                    | Video Input           | 4 channels  | 8 channels                       | 16 channels   |
|                    | Video Input Interface | BNC (1.0 Vp-p, 75 Ω)  |                                  |   |
|                    | Audio Compression     | G.711u  |                                  |   |
|                    | Audio Input           | 1 channel, RCA (2.0 Vp-p, 1 kΩ)   |                                  |   |
|                    | Two-way audio input   | 1 channel, RCA (2.0 Vp-p, 1 kΩ) (using the audio input)   |                                  |   |
| Video/Audio Output | CVBS Output           | 1 channel, BNC (1.0 Vp-p, 75 Ω), resolution: 704 × 480  |                                  |   |
|                    | HDMI / VGA Output     | 1 channel, resolution: 1920 × 1080 × 60Hz, SXGA: 1280 × 1024 × 60Hz, 1280 × 720 × 60Hz, 1024 × 768 × 60Hz |                                  |   |
|                    | Video Loop Out        | 4 channels, BNC (1.0 Vp-p, 75 Ω)  |                                  |   |
|                    | Frame Rate            | 960H / 4CIF / 2CIF @ /15 fps;<br>CIF / QCIF @ 30 fps  |                                  | 960H @ 8 fps;<br>4CIF / 2CIF @ 10 fps;<br>CIF / QCIF @ 30 fps |
|                    | Synchronous Playback  | 4 channels  | 8 channels                       | 16 channels   |
|                    | Video Bit Rate        | 32 kbps ~ 3072 kbps, or user defined (max. 3072 kbps)   |                                  |   |
|                    | Stream Type           | Video / Video & audio   |                                  |   |
|                    | Audio Output          | 1 channel RCA (linear, 1 kΩ)  |                                  |   |
|                    | Audio Bit Rate        | 64 kbps   |                                  |   |
|                    | Dual Stream           | Supported; sub-stream: CIF / QCIF @ 30 fps  |                                  |   |
|                    | Encoding resolution   | WD1 / 4CIF / 2CIF / CIF / QCIF  |                                  |   |
|                    | Hard Disk             | Capacity  | Up to 4TB                        |   |
| SATA               |                       | 1 SATA interface  |                                  |   |
| External Interface | Network Interface     | 1, RJ-45 10M/100M adaptive Ethernet   |                                  |   |
|                    | USB Interface         | 2, USB 2.0  |                                  |   |
|                    | Serial Interface      | 1, RS-485 interface, half-duple   | 1, RS-485 interface, half-duplex |   |
| General            | Power supply          | 12 Vdc  |                                  |   |
|                    | Consumption           | < 10 W  | < 10 W                           | < 15 W  |
|                    | Working temperature   | 14°F ~ 131 °F (-10 °C ~ +55 °C)   |                                  |   |
|                    | Working humidity      | 10 % ~ 90 %   |                                  |   |
|                    | Chassis               | Standalone 1U chassis   |                                  |   |
|                    | Dimension (w × d × h) | 12.4" × 9.1" × 1.8" (315 mm × 230 mm × 45 mm)   |                                  |   |
|                    | Weight                | ≤ 4.4 lb (≤ 2 kg) w/o hard disk and DVD-R/W   |                                  |   |

## APPENDIX A Glossary

**Dual Stream:** Dual stream is a technology used to record high resolution video locally while transmitting a lower resolution stream over the network. The two streams are generated by the DVR, with the main stream having a maximum resolution of 4CIF and the sub-stream having a maximum resolution of CIF.

**HDD:** Acronym for Hard Disk Drive. A storage medium which stores digitally encoded data on platters with magnetic surfaces.

**DHCP:** Dynamic Host Configuration Protocol (DHCP) is a network application protocol used by devices (DHCP clients) to obtain configuration information for operation in an Internet Protocol network.

**HTTP:** Acronym for Hypertext Transfer Protocol. A protocol to transfer hypertext request and information between servers and browsers over a network

**PPPoE:** PPPoE, Point-to-Point Protocol over Ethernet, is a network protocol for encapsulating Point-to-Point Protocol (PPP) frames inside Ethernet frames. It is used mainly with ADSL services where individual users connect to the ADSL transceiver (modem) over Ethernet and in plain Metro Ethernet networks.

**DDNS:** Dynamic DNS is a method, protocol, or network service that provides the capability for a networked device, such as a router or computer system using the Internet Protocol Suite, to notify a domain name server to change, in real time (ad-hoc) the active DNS configuration of its configured hostnames, addresses or other information stored in DNS.

**Hybrid DVR:** A hybrid DVR is a combination of a DVR and DVR.

**NTP:** Acronym for Network Time Protocol. A protocol designed to synchronize the clocks of computers over a network.

**NTSC:** Acronym for National Television System Committee. NTSC is an analog television standard used in such countries as the United States and Japan. Each frame of an NTSC signal contains 525 scan lines at 60 Hz.

**DVR:** Acronym for Digital Video Recorder. An DVR can be a PC-based or embedded system used for centralized management and storage for IP cameras, IP Domes and other DVRs.

**PAL:** Acronym for Phase Alternating Line. PAL is also another video standard used in broadcast televisions systems in large parts of the world. PAL signal contains 625 scan lines at 50 Hz.

**PTZ:** Acronym for Pan, Tilt, Zoom. PTZ cameras are motor driven systems that allow the camera to pan left and right, tilt up and down and zoom in and out.

**USB:** Acronym for Universal Serial Bus. USB is a plug-and-play serial bus standard to interface devices to a host computer.

## APPENDIX B    **FAQ**

### **Q    Why does my DVR make a beeping sound after booting?**

A    The possible reasons for the warning beep are:

- a.    There is no HDD installed in the DVR.
- b.    The HDD is not initialized.
- c.    HDD error

To cancel the beeping sound and use the DVR without HDD, open the **Configuration | Exception** menu and de-select the Audible Warning.

### **Q    Why does the DVR seem unresponsive when operating with the IR remote control?**

A    Please read through the section Using the IR Remote Control, then check:

- a.    Nothing is blocking the IR sensor on the front of the DVR.
- b.    The batteries are installed correctly in the remote, making sure that the polarities of the batteries are not reversed.
- c.    The battery power is not depleted.
- d.    The remote has not been tampered with.
- e.    There are no fluorescent lamps in use nearby.

### **Q    Why does the PTZ seem unresponsive?**

A    The RS-485 interface and PTZ controls are not supported on this DVR.

### **Q    Why is there no video recorded after setting the motion detection?**

A    If there are no recorded video after setting the motion detection, please check the guidelines in Chapter 5.

- a.    The recording schedule is setup correctly. See **Menu | Record | Schedule**.
- b.    The motion detection area is configured correctly. See **Menu | Cameras | Motion**.
- c.    The channels are being triggered for motion detection. See **Menu | Cameras | Motion**, check the Enable Motion Detection option, the Sensitivity setting, motion detection zones.

### **Q    Why doesn't the DVR detect my USB export device for exporting recorded files?**

A    There's a chance that the DVR and your USB device is not compatible. Please refer to our company's website to view a list of compatible devices.

**Q Why doesn't my remote control doesn't work?**

A There may be several reasons. Begin by checking the following:

- Make sure you have installed batteries properly in the remote control.
- Make sure you are aiming the remote control at the IR receiver on the front panel, and the sensor is not obstructed or dirty.

If there is no response after you press any button on the remote, follow the procedure below to troubleshoot:

- a. Go to **Menu | Settings | General | More Settings** menu using the mouse.
- b. Check and remember the device ID#. The default ID# is 255. This ID# is valid for all the IR remote controls.
- c. Press the **DEV** button on the remote control.
- d. Enter the device ID# from step b.
- e. Press the **ENTER** button on the remote control.

If the remote control is operating properly, but there is still no response from the remote, replace the remote control and try again, or contact your DVR provider.



## APPENDIX C HDD Installation

The following procedures illustrate hard disk drive (HDD) installation in a ALI-DVR3000H series DVR without an HDD. If you purchased your DVR without a HDD, or you want to replace the HDD installed in your DVR, use this procedure as a guideline.

### C.1 DVR compatible HDDs

For the best performance of your system, install only a high-reliability security grade HDD. Security grade HDDs are designed to stream video efficiently.

### C.2 HDD Installation

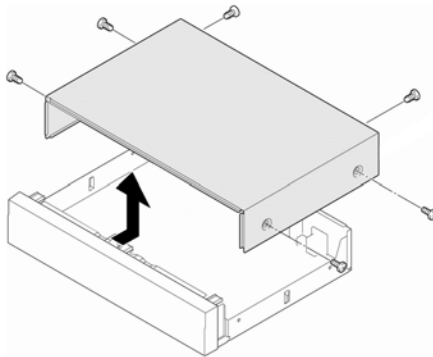
The the will accommodate only one internal HDD. The HDD attaches to the chassis with four screws inserted up through the underside of the chassis.

Cables and screws needed to install the HDD are provided.

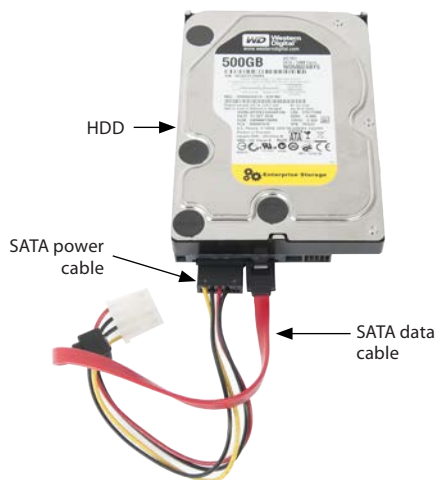


*Follow recommended electrostatic discharge (ESD) guidelines while performing this procedure. Install the HDD in a static-free environment, wearing a certified ESD wrist strap. If a static free environment and ESD wrist strap is not available, touch the bare metal of the DVR chassis frequently when installing the drive to dissipate the static charge naturally generated on your skin and clothing and avoid touching electronic components.*

1. Power off the DVR, if necessary, then disconnect the power adapter from the back of the DVR.
2. Remove the top cover from the DVR by removing the six cover screws. Two cover screws are located on each side, and two are located on the back panel. See the drawing below. Save the screws for use later.



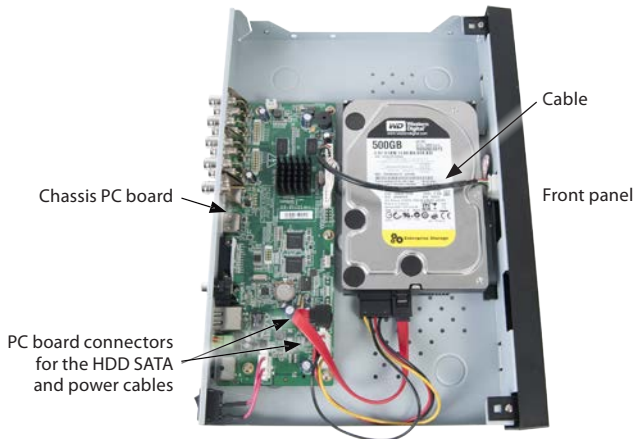
3. Attach the SATA data and power cables provided to the mating connectors on the HDD. See below.



4. Locate the holes in the chassis for the HDD mounting screws, and holes on the underside of the HDD for the mounting screws. See the photos below.



5. Position the HDD as shown in the photo below, aligning the chassis holes for the HDD screws with the HDD mounting screw holes. Note that the HDD is placed under the cable from the front panel to the chassis PC board.



6. Plug the HDD SATA power and data cables into the mating connectors on the chassis PC board.
7. While holding the HDD in place in the chassis, carefully turn over the chassis with the HDD, then install the four HDD mounting screws provided to anchor the HDD to the chassis. Tighten the screws until snug.



8. Turn the chassis over (top up). Check the SATA data and power cable connectors at both ends to ensure they are fully seated.
9. Reinstall the DVR cover using the cover screws removed earlier.
10. Reattach the power adapter to the back of the DVR.
11. During the DVR initialization, follow the options in the Wizard to initialize/reformat the HDD. You can also initialize the HDD using the Menu HDD feature.